VOL. XVI. No. 2 APRIL, SPRING, 1935

THE
PERSONALIST

A QUARTERLY JOURNAL
OF PHILOSOPHY
RELIGION AND
LITERATURE

RALPH TYLER FLEWELLING, EDITOR
Assisted by F. C. S. Schiller, R. F. A. Hoernle, W. H. Long
E. D. Starbuck, H. L. Searles, B. A. G. Fuller, H. J. Smith
Richard Hope, William Van Wyck, Edgar S. Brightman
and others
Foreign Advisory Editors: N. Lossky, Prague; Victor Monod,
Strassburg; Mario Puglisi, Rome.
LINDA W. MACDONALD, *Subscription Secretary*

Published by

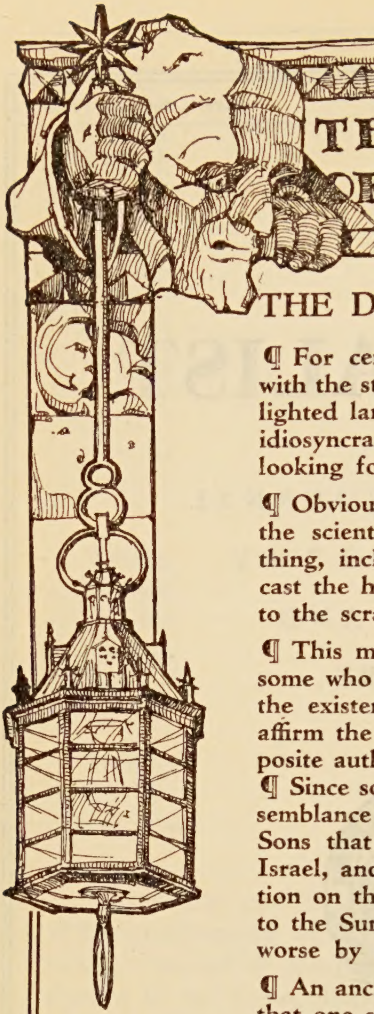
THE SCHOOL OF PHILOSOPHY
UNIVERSITY OF SOUTHERN CALIFORNIA
3551 UNIVERSITY AVENUE - LOS ANGELES - CALIFORNIA

Copyright, R. T. FLEWELLING, 1935 Registered U. S. Patent Office

Entered as second-class matter July 3, 1933, at P.O. at L.A., under act of March 3, 1879

SINGLE COPIES 50 CENTS YEARLY SUBSCRIPTION $2.00

THE LANTERN OF DIOGENES



THE DUPLICITY OF DIOGENES

¶ For centuries the world has been regaled with the story that Diogenes, discovered with a lighted lantern in broad daylight, excused the idiosyncrasy with the observation that he was looking for an honest man.

¶ Obviously, that is at best tradition, and since the scientist should by nature doubt everything, including himself, it might be well to cast the hoary tradition of the lantern episode to the scrap-heap of time.

¶ This may seem not half drastic enough to some who will think it more scientific to deny the existence of Diogenes altogether, and to affirm the lantern story to be a work of composite authorship, which it doubtless is.

¶ Since some have affirmed from the close resemblance of the word Saxons to that of Isaac's Sons that the English are the lost tribes of Israel, and one scholar has risked his reputation on the assertion of a relation of Chinese to the Sumerian culture, we may be doing no worse by indulging the following day-dream.

¶ An ancient custom of the Chinese demands that one should pay his debts on New Year's Day. Failing to raise, beg, borrow, steal, or salvage from one's relatives the amount needed, there is nothing left for a Chinese gentleman to do but to abscond or commit suicide.

¶ Naturally, such a situation has its embarrassments. Life is sweet, but the excuse for non-suicide is hard to be come by, so those who have been delayed in liquidating go about all New Year's Day and the next with a lighted lantern. So long as the candle burns, the day is yet young, it is still considered to be New Year's, one is not yet in arrears, suicide is avoided, and "face" is saved.

¶ To the earnest anthropologist it will appear that the Diogenes tale is, under these circumstances, an example of the influence of Chinese upon early European culture; that Diogenes was seeking not at all for an honest man, but only to avoid momentarily the consequences of having purchased a tub on the instalment plan. Thus we arrive at the discovery of the "duplicity of Diogenes."

¶ These ancient "facts," dug so laboriously from the burial-mounds of past tradition, might be dismissed with a laugh, were not the habit of lantern-carrying so widespread, and the duplicity exhibited so general a practice among both ignorant and learned.

¶ One easily recalls old and respected friends who are still trying to live in the local conceits, prides, complexes of the days before the Civil War.

¶ In China we still encounter men with queues who steadfastly maintain that the Empress Dowager is not dead, nor the Manchu reign ended. "If she is dead," they "have never heard of it."

¶ In quite similar fashion some of our scientific friends have not changed their teaching one whit to conform to the revolutionary ideas and principles brought in by recent scientific discovery.

¶ The persistence of some of our religious friends is even more remarkable. Their principal task seems to be the trimming of theological lanterns in a world that demands the forward look and vital energy of growing religion. Their faces seem to be set forever at gaze upon a dead past, while the institutions for which they are responsible threaten to grow so steadily out of harmony with life as to become worthless. Meantime they spend their enregies damning every religious movement which seeks to find expression in any but the out-worn phrases of yesterday, as if religion could be judged by the parts of speech.

¶ Vast changes have taken place likewise in the social order. The *laissez faire* and utilitarian principles of Smith and Bentham were built for an under-served and expanding world—a world of under-production. Scientific discovery, the age of machinery have changed all this irrevocably. Here and there are some trying frantically to thrust the chick back into the discarded shell, the butterfly into the chrysalis, but it cannot be done. Such is true of the present order. It is no one's fault in particular but it is reality—a revolution in which the "reds" are an insignificant and negligible factor. Their impotence is in exact ratio to the noise they are encouraged to make, like the geese that served no better purpose than to save Rome.

¶ The question that emerges is, how long shall we keep up the make-believe of lantern-carrying? We are living in a physically new world such as time has never before known. It is so intricate, so tight-packed, thanks to railroad, airplane, radio and a thousand inventions that could be mentioned, that not even the Island of Borneo can now remain in "splendid isolation." Humanity cannot concede to the Borneans the right "to run their island as they please," without regard to the rest of the world.

¶ Their island commands and could hamper a third of the traffic of the world by ship and gun recklessly used. Contagious disease there would constitute a threat to the health of half the population of the globe. Any little nation might conceivably, living on the principle of "our own business," impede the world passage of mails, deny the right of peaceful airplane landing, interrupt the forwarding of supplies that would mean the starvation of millions.

¶ This is no revolution "which is about to take place," it is already in process. Its main features are a narrowing world of communications and a new world of industrial process, demanding readjustment to the common welfare. Had there been a mind to check it, we should have suppressed Watts, Fulton, Bell, Marconi and Wright brothers. The changes they have wrought can be lost only by the utter destruction of civilization. The changes are here and the ensuing rearrangement is not our choice; it is a part of the inevitable readjustment of the structure of society. Our only choice is one of "how."

¶ The part of wisdom is to recognize the facts and to accommodate ourselves to them. The comfortable world of our childhood is gone. It was given the passing generation to enjoy the culmination, the harvest season that grew out of the privations of the pioneers. The present generation must lift this pioneering to a higher level, which will have for its object not the welfare of isolated but thrifty individuals alone, nor even the selfish aggrandizement of a single nation, but the good of all.

¶ The old world disappeared with the well-sweep, the ox-cart, and the wide spaces of the caballero. Shall we adapt ourselves to the new and crowded world? Shall we make common cause for a universal welfare? Or shall we go about in the broad light of a new day, resisting change, demanding the old certitudes, and pretending, until only the alternative of suicide becomes inevitable, that today is yesterday?

R. T. F.

The Personalist

WORLDS IN WHICH WE PARTICIPATE

By HARTLEY BURR ALEXANDER

NOW of a World I should say that it is not one and total but that there are many worlds and that each of them is partial and imperfect, and that in such sense and in its degree each world is a living world. For I should add that no living thing is one and perfect, but that it is of the nature of the living and the existent to be manifold and imperfect, and that unity and totality and perfection are the measures of life and of existence and are not themselves living: if unto them be reserved the form of reason and of felicity, yet is this a felicity which pertains unto death alone. But othersort are the living worlds, and all those which may truly be said to exist, and othersort is the life of man which participates in worlds that are living, and shares in their imperfections.

Now of these worlds in which our lives participate I shall first mention that one among them which most greatly absorbs the zeal and attention of men of science and of those philosophers who are the disciples of Thales and the others of Ionia, in modern hours and in ancient. This world, after the manner of Pythagoras, they name The Cosmos, deeming that it alone is the paragon of order and of law, and that in the vastness of its dimensions and the number of its parts and in the apparent simplicity of its structure it is of all worlds the most imposing and first in our admiration. To the senses this world is presented as the Thing of Stars, and to the mind also as the Thing of Stars, though rather in the mode of their stellar action (which is much regarded as everlastingly the same) than as a vision of form, be this form galactic or sub-atomic; so that before the mind the world shows as a kind of vasty deed, perpetually incorporating its principle of unchanging motion within its one substance, and thus it is become as a single body or Physis, as again the Ionians named it. Of this physical body it is said that there is but a single substance, one and homogeneous throughout, yet of the nature of a becoming and not of a being, and this is named the radiant energy, which is of all things last and first, an Alpha and Omega of reality. In some fashions this energy is likened to the patterning which the waves give to the great waters of the sea, weaving as into intricate nets the surfaces and depths of the abyss, and in some fashions it is likened to a spume cast into pearls of shining spray and thrown thence dissolvent unto the winds of time and space. But out of this energy arise minute particles and masses, which, driven furiously and hurtled one against other, generate collisions and unitings and divisions and clingings and repulsions and a chaos of Lilliputian combat. Natheless, even thence springs a kind of order: for the physical body is possessed of parts and as it were organs of a mechanic and skeletal kind. These are in the nature of moving wheels and spheres, all much resembling in shape and movement, but in size of every degree, such that there are infinitesimals of electrons revolving with protons, and these are atoms; and atoms with atoms revolving yield molecules; and molecules form into cells and atomies; and these into molar bodies and substances; and these into planets and stars; which, revolving together form into suns and systems; and these into constellations, and thence into galaxies, and into constellations of galaxies, and into universes that are enisled, and into worlds that are lost beyond computation,—yet throughout there is but the one form of epicycle and cycle and hypercycle, till the whole heaven is blazoned wheel within wheel, vortex within vortex, and the Body of the Physis is thereby defined as a mighty sphere of celestial dancers, circle echoing circle down to the utterly minute. But of this madness it is maintained that there are ends and terminations: beginnings such that its age may be computed and completions such that its last term may be guessed. Certain philosophers adjudge of this Physis that its expansion is unto the very walls of Destiny, where time and space may suffer nothing more; thence it returns into itself, wherefrom, self-abhorring, it once more seethes afar from its center until after trillions of light-years it is again flung backward by Destiny, to become again its own Nemesis and abhorrence, —and for these thinkers, who are the modern followers of Anaximenes, the Physis is like an eternal breathing, outward and inward, distention and contraction alternating as do night and day, without cessation nor term. Yet others, speaking with more fury, deem that the Physis is an expulsion and explosion out of itself, and a rending of its own being and substance, such that its parts hurled outwards flee one another until they recede into other dimensions and become unto one another but as ghosts,—though even as ghosts their hauntings must fade, for this is the fate of their eventual speed, out-travelling illumination. There is also a third view, as of modern Heracliteans, who see in the Physis naught but the embers and ashes of a now-passing conflagration, so that it is to be thought of as a sad and sodden dust descending from the naught into the naught. But all of these philosophers have as one agreement that their world is a kind of body which in itself is as the shadow of a thought.

Such then is the first of those worlds in which our lives participate, the which is called the physical world; and the manner of our participation is this: that as bodies we share in its Body, having all its form and attribute of sphere within sphere, and beyond this naught. For our bodies are composed of energy and motion and mass and substance, organized after the manner of the clusterings of the greater and the smaller, so that there is a bodily whole, and there are parts thereof, and of the parts organs, and of the organs cells, and of these molecules, and of these atoms, and thence more minutely the particles of atoms; and each of these is imperfect and unsatisfied, and out of the sum of their imperfections is composed our bodily life, which is like a burning and a flame, flaring upward but to fade and die away. Such are our bodies in the midst of the Body of the Physis, having being after the manner of the stars, which also are as flames, for a period maintained and in their season, out of self-abhorrence, perishing; and it is in this likeness that as human beings we participate in the physical world.

Moreover, this participation is in a certain mathematical proportion. For as our Sun moves somewhere near the center of its Galaxy, and among its neighboring suns is neither with the greater nor the smaller, but is of the mean in size (as our Earth also is of the mean amid its sister planets), so is it with our bodies, which are unthinkably minute with respect to the whole of that Thing of Stars which we call the Universe, but with respect to the minuteness of atoms and electrons are themselves each a universe, unthinkably huge, so that our bodies likewise hold a mean or middle place in the proportions of the spheres, poised midmost in the world whereof I speak. And it is because of this central placing that the human body may be regarded as the prime integer of reality and the first of the mathematicals: all that is less with respect to it may be considered as its decimal and its fraction, and all that is greater as its multiple reduplication, whereas it itself is no true number, but like the number One it is that with respect to which all lesser numbers combine into its universe, while with respect to greater numbers it is the pivot and measure and the first out of naught. Thus it is with the human body, which through the aid and genius of number participates in the being of Physis.

But we may not yet have done with this: for in other manners through the mediation of number we participate in this world's being. Even as in the Physis there is no simple continuity, but clusterings and constellations, as of atoms and of galaxies, so also in the realm of the numbers employed in our computations there are clusterings and constellations, and alterations of character and kind according to their position and employment: and the clusterings of the Physis are reflected in the clusterings of the numbers which image it. Thus it is that natural integers which are huge—in either direction, of the great or of the small,—have not the same character and quality as of numbers which lie close and neighborly unto our bodily integer; but they form rather into more and more remote nebulae, conceptually indicated by blanks of ciphers or by conventional symbols less laborious, so that thousands constellate with thousands, and trillions with trillions, and infinites with infinites; until the numbers themselves are like hivings and swarmings of bees, which can be distinguished in quantity by their aggregations, but only where they be few and near can the mind grasp them and the integer be determined. Such also is the physical world when its parts are computed; for those regions which are distant in number, because of their remoteness from the Neighborhood Numbers within which the body of man is central, take on other than their neighborhood character and color, just as hills which to the near eye are green become blue or purple with distance. Therefore, Number does not mean the same thing in the one and the other cluster, and the computations of numbers mean not the same, and the numbered parts of the Universe are not simple and continuous, but qualitatively diverse, according to their number.

Moreover, there are other manners in which our body through its inner mathematics participates in the being of physical nature. For not only are there Neighborhood Numbers, differing in quality from Perspective Numbers, but also there are other numericals by means of which the Physis is made conceivable and is related to our being. Among these I would mention first those which are Ordinal, and have to do with direction only, and are the first principle of order and of Cosmos, and are related to our bodies as are the steps of a journey: it is true that in the Physis such numbers are generally neglected, and are bethought as of little moment; yet do they enter even so, for there is direction from large to small, or the reverse; and there are also irreversible directions, such as that implied in the second law of thermodynamics, named the law of entropy; and there are other examples; so that our bodily journeys also enter into the frame-making of the physical world. And again there are Eye Numbers, which have to do with the determination of all continuities in the midst of their continua; and there are Digital Numbers, derived from our fingers, which measure discontinuities; and there are Motion Numbers, which the sweeps of our limbs generate; and there are numbers which may be called Architectural Numbers, created by the mechanic contrivance of our skeletal structure, and these give us the numbers of our geometries, both of Euclid and of his successors. In all of these, and in other ways, our physical bodies yield us patterns of familiarity whereby we share in the being of the Physis. Yet in all of these ways also, it is to be noted, our bodies share but after the manner of a thought in that of which the existence is for us after the manner of thought.

Nevertheless, it is of great interest to note that both our bodies, which take on the form of number, and the physical universe, which assumes this form, in striking aspects seem together to have a share in a second world, which is not physical, and which is the true world of the mathematicians, and may be called the World of the Mathematicals. For it is a matter of wonder that both our minds and the structures of the Physis seem to share evenly in the being of the Natural Numbers: such that when quanta appear within atoms and elements, and when elements assort in the atomic scale, and when atoms combine into molecules, and when masses are related by gravitational attraction, all such relations are expressible in terms of the integers of natural numbers, which are thus the familiars both of our embodied minds and of the embodied Physis. Whether this is in fact an ultimate truth or only a prejudice of our mode of perception is not wholly clear; but should it indeed be the ultimate truth, as appears plausible, then are we face to face with a matter of astonishing interest, for it seems to show that in both the mental and physical, there is an underlying participation in the World of the Mathematicals.

In yet another fashion this is indicated by the gift of mathematical surmise, whereby certain astronomers and physicists have been able by the mere force of genius and by a sort of instinct to so direct their powers that the structure of Nature has been revealed to them where there has been no sensible indication, their minds conforming to the truth directly and without mediation, like to the skill of a physician gifted with a power of diagnosis which he himself cannot explain. Something of the same gift, surely, is that of those who are called mathematical prodigies, and who, although they may be in other respects men of very ordinary capacities, in matters of number and quantity and computations, proceed by a kind of intuition to results far removed from any ordinary experience.

To be sure, in this latter case, the question is not one of the participation of the physical universe in the World of the Mathematicals, but only of the mind of man; and it may indeed be that the mind of man participates far more fully than does the Physis in this second world. For we are well aware that the mathematicians themselves have no primary interest whatsoever in things physical; they may be gratified when their discoveries are found profitable to the physicist and the astronomer, but it is no affair of theirs that this should be so. Rather they pride themselves upon the independence of their own realm, which they can show to be filled with many orders of being having no bearing upon the Physis, and no application to it. Numbers finite and infinite and transfinite, numbers natural and symbolical, rational and irrational, and a great variety of operations which are of mathematics alone, having nothing to do with any other nature,—all these are of the World of the Mathematicals, and not at all taught by Nature. Furthermore, it is the belief of mathematicians that their world is one having vast possibilities of exploration and discovery, its truths being not all the possession of human minds, in their present endowment, any more than they are gifts of Nature. Man participates in this world, as apparently does also the Physis, but as a world it is superior in its possessions both to man and to Nature; and if its character be of mind, which may well be, yet is this Mind of the Mathematicals something superior to its participants, and independent of them. Of it we can only say that the genius of man is in part endowed by it, and where this endowment corresponds to another endowment with which number has entered into the body of Nature, there the two come together in a kind of union, and the Mathematicals are then said to illumine and mediate the truths of Nature, they playing the role of a third being, between man's mind and Nature, and thereby causing the one to reflect the other. This appears to have been the meaning of Plato when he spoke of Numbers as Ideas playing a role of illumination as between Ideal Forms and Nature. But it is not clear whether Plato recognized, as must we, the existence of Numbers and Ratios which are not measures of things physical, and which, though shared by us, have no part in the Physis. Yet his thought seems to imply this.

Thus it is that these are two of the worlds in which the life of man participates, the World of physical Nature and the World of the Mathematical Beings; and these two are partly at one with one another and partly independent; and it seems likely also (though not certain) that where they are at one their union is adventitious; or, if due to more than chance, it is due to the fact that the elements which are common to both, such as certain numbers and forms, are so because they are united in a mind of which our human minds are reflections and in their degree communicants: otherwise their partial union is wholly obscure.

Now it is to be observed of these two worlds that in their essences they are wholly subsensible. Indeed, it is their very natures to draw away from the senses and to be, as we say, abstract. It is true that the idea of the physical world makes use, for conceptual purposes, of certain images drawn from the senses: as of granular bodies and particles which are imaged as distinguishable by an ideal sense of touch; or of wavelike motions such as our limbs can figure; or of flushes and chillings which are rendered as degrees of temperature; or of discriminations of light and dark within the one field such as the eye can follow; and there are others which yield the ideas of weight and force, of strain and release. And in an analogous fashion it is true of the mathematical world that it borrows illustration from the digits wherewith we count, and orientation from our whole bodily skeleton and frame, and the meaning of up and down, and higher and lower, and greater and less, and of direction and surface and bulk, and the like, from our bodily action, and even the notion of numbers as things from our perceptions of sensible things. Yet in both worlds such borrowings are for the sake of example, and have nothing to do with the subsensible essences of these worlds, for without any intervention of sense these worlds would exist in all their fullness. Just as between themselves they share something of one another's being, so that number participates in the physical and physical in number, so here each of these may be said to share with the sensible world certain of their qualities, so that the latter becomes in its fashion partaker in their being. But this by no means should be understood to imply that the being of the sensible world is identical with these other domains, nor that it is their dependent. Quite other is the case, for in most respects the sensible world has little or nothing to do with either the physical universe or the realm of the mathematicals. Indeed, it is a world by itself, and like the others in essence independent.

For it is well known that for the science of physics energy is something other than the sensed exertion of muscles, and mass is not at all but a lifted weight, even though these latter serve to familiarize the meanings of energy and of mass; and similarly temperature is not warmth and cold, sound is not a heard noise nor a music, light is wholly diverse from the illumination of the eye. All of these sensible elements, after a fashion, interpret for us the physical world, but rather as the metaphors than as the actualities of that world; and while it may appropriately be said that such metaphorical interpretations, if they be well considered, indicate a sort of communion at certain points between the world of sense and the world of physics, yet do they have also the duality and separation which is implicit in every metaphor, such that they are seen to be two even where they are related. It is true, also, that this relation is not affirmed to be one of identity—the two kinds of being, sensible and physical, being essentially separate, as all concede,—but rather it is held to be one of causality, such that the physical is the cause and the sensible the effect: but this again is but the expression of their fundamental duality, since the physical is always deemed to be the cause and the sensible always the effect, and there is no conversion of the one or the other,—so that causality in this usage comes to possess a unique meaning, quite different from its equational meaning as in the science of physics it is employed. Indeed, causality is itself but another type of metaphor, having a locative indication of event rather than any qualitative analysis of state or thing, and in this it most differs from identity. Thus, even in the realm where they intimately participate, the sensible and the physical worlds are quite diverse.

Moreover, if it is to be regarded as a cause of the sensible, in its relations therewith, the physical world evinces certain curious functions that are analogous to those which mark physical forces and bodies when in dimension they are in the neighborhood of human lives and bodies, and not, like stars and atoms, wholly remote. For just as in the scale of the radiant energies there is a thin aperture which is bridged by that spectrum of energies to which we give the name of light and which has in our own eye-sense its response, wherein the spectrum of the energies is utterly different from the spectrum of the visible colors and intensities, so also in the whole neighborhood of our bodies physical energies seem to take on this extraordinary power of being associated with and of perchance generating all the tones and colors of our vital sense: such that a field of sense gathers about these energies in the dimensions of our bodies, entering into our lives and giving its present vividness to sensation. In some such manner, we may suppose, the electromagnet generates its field, or the clustering stars establish their empires, having influence upon bodies and realms adjacent to their courses, but dead and blind to bodies more remote. Thus, nigh the orbit of our bodies, the physical and the sensible worlds move with an interlocking influence, and as it were illuminate one another, energy being perceived as light and light as energy; but in dimensions more estranged, we do not know if the like perception be valid, although we may speculate that it may or may not be. For like as a human being might press with his foot upon the busy habitation of the ant, these hurrying creatures will not perceive him as another in sentience like themselves, but because of his hugeness he will be to them but as some natural and devastating force, unthinking and unreckoned: so may it be that with bodies less than of our perception there may be associated florescences of action of which we wit not, and in bodies vastly greater also, such that the stars themselves may be as footprints of the gods. All this is but a mythical presumption: yet if in our own bodily neighborhood the World of Physics is interlocked with a World of Sense, we cannot say that in the neighborhoods of the greater and of the smaller other such worlds may not conjoin with the Physis, also. And just as between the cities and hives of men there is communication, so between the celestial galaxies signals may be passed, ourselves being, in the presence of such Titans, but as the ants, blind and unwitting.

Enough, then, of the relation of the physical and the sensible. But something is to be said of those particulars in which the World of Sensible Reality is devoid of relation to the Physical World. Now the principle of order is in the two worlds wholly distinct; for this principle in the physical world is of spatio-temporal motion, whereas in the sensible world it is of events oriented with respect to past and future. Thus time for the physicist (except for certain cosmogonical ideas of which I have spoken and which are accidental to his science) is computed of space and motion and number, whereas for the sensible world time is one in direction, and has to do with alteration and not locomotion, and is devoid of measure. This time of the sensible world is what we term History, and its mark is memory, which is useless in the organization of the Physis, but without which the Sensible World could have no existence. With memory, and the order which it establishes, the physicist has no part, but it is the very core of the realities of sense, and of all life, whether of mind or of bodies. Thus it is that the sciences which we call the biological, as well as those of mind and history, in large part pertain to the World of Sense, living bodies having their reality in the mode of growth and decay, which is the mode of alteration, and of ordered time. Certain philosophers speak of an Evolution of life and of all being (these being followers of Empedocles who was the first to speak clearly in this matter); and although there are varying interpretations of the doctrine, yet in this all agree, that there is one direction to evolutional change, such that it may never retrace its steps, nor go backward upon itself. That, then, is an ordered but not a measured time with which they deal, and it is the sort of time which is the principle of order in the World of Sensible Events, and in its intelligible form it is memory. But with this neither the physical nor the mathematical worlds have any commerce. Furthermore, the reality of the sensible world is the reality of its time, as I have said and as certain philosophers are not slow to indicate; and it is for this perhaps that we speak of its time as the real time, and in a kind of phantasy extend it to include not only the biological and geological history of our earth but also the astronomical history of all the stars, which we name Cosmogony. Sometimes, to be sure, there is a confusion of mind as between the sense-transcendent principles of the Physis and the sense-embodied principles of cosmogony, principles of both sorts being applied to the stars; but in reality they pertain to different worlds.

Now the sensible world possesses also another trait by which it is distinguished, and this is that it is susceptible of contradiction and illusion. These take place in several modes: for error may hold first in the relation of the sensible to the physical, as when we sensibly perceive the path of the lightning as a spatial flash and a thing, rather than as a motion; or perceive a mountain, which with respect to our lives moves not, as an abiding rock and a thing, and not as a motion; so that we say no sense-perception gives the physical truth of anything. Again it may be that the contradiction lies wholly within the sensible world itself, as when one sense contradicts another, such that eye-sight shows us faced with a narrow passage impassable to our bodies, yet approaching, and by the sense of motion testing, we find that this is perspective illusion, and that the way is open. And in a third case, where we perceive upon the sunlit garden a shimmer of glory, and proclaim this and perhaps the whole realm of sense to be a house of wonder and of charm, yet the visible and audible beauty themselves we ascribe not to vision and audition nor to any mere sense-impression, but say rather that it is a glamor come from another than the sensible world; and this we name the aesthetic world, which here participates in the world of sense, but in its essence is another. Thus in all these ways we find the world of sense sharing in contradiction and illusion, and giving rise to ideas of truth and error, both with respect to itself and to other worlds; and in this again the sensible world is totally independent of the physical world, which knows no truth and error, but only law. But whether sense creates error and beauty or only shares in them in a figurative and borrowed application is not yet determined.

Some there are who would say of the Aesthetic World that it is given of the senses, but in a manner which is its own and as a peculiar endowment having no part in the practical deliverances of vision and hearing and the rest.

But these are sadly put to it to account for the non-sensible beauties to which the mind of man is responsive, and to the fact that not only in the world of sense do we perceive beauty, but also in the realms of science and of mathematics and of morals, and indeed in all the aspects of our lives. Furthermore, in none of these realms is the presence of beauty and ugliness necessary to their validity, nor is agreement with respect to aesthetic qualities regarded as important in any but as an additional understanding, so that we say that truth and beauty have no immediate correspondence to one another either with respect to the Physis or to the World of Sense or to any of the other worlds which have their own standards and being. Certain thinkers have been tempted to regard beauty as wholly illusory with respect to reality, or as an accident thereof. But this distorts the main testimony of human experience: for men not only agree that aesthetic qualities distinguish natural objects, and are participated in by them, but in our own activities as men we have sought in many ways to render our lives more suitable by surrounding ourselves with objects which we have created to exemplify aesthetic charm, and this not only with respect to the objects of visible art, and of music and poetry, but also in the organization of human manners and motions and appearance, and very much also in natural breedings, where the presence of beauty in the beloved is a prized quality. It is, then, not to be denied that the Aesthetic World profoundly influences the reality of its sister worlds, and most perhaps the reality of the World of Sense. But that it has a reality of its own, existing in independence, is equally clear: not least made evident by the vicarious character of the aesthetic genius, such that the artistic understanding colors all the activities of him who is its possessor, or again such that the same idea of beauty finds abundant and varied interpretations not only within one art, as painting, but in many arts, and in unrelated fashions, as now of music and now of things visible and now of poetry and now of action; and furthermore, there are numerous instances of persons who have adapted their expression of the understanding of beauty to other senses, when as result of accident or bodily change they have lost the power of expression in some one medium and have chosen another as the vehicle of their art. In all these ways beauty stands in a vicarious relationship to sense, which may share in it but is not itself the parent or determiner of beauty. Rather, ideals of beauty are by their own right the principles of the Aesthetic World, where they exist in independence, rulers of their own realm, though friendly with other realms where through art or nature they may come into mutual touch.

Also the Moral World of which the principle is goodness is a participant in the Aesthetic World, for nobility of conduct and certain emotions such as love and again the moral virtues are all regarded as beautiful. Moral again is the instinct which impels us to prefer truth to error in the realms of sense and of science, and to make of Truth and of Order, which is the companion of scientific truth, patterns of Goodness. For of themselves beauty and truth are good only in so far as they share in a certain valuational scale, coming from beyond them and from beyond ourselves as mere animals (for we do not believe the animals to possess such a scale); and it is that scale of values which gives final sanction to all our conduct, and to our adherence to life, and establishes, as it were, the profession of our faith in whatever, under its test, we undertake. For as long ago was said of us by Longinus, in this life we are entered as into some vast assembly, to be spectators and in our manner participants in its contests, and when we look about us and behold how in all things the great, the beautiful and the sublime stand supreme, then at once we know for what ends we have been born. And it is of such knowledge, originating from a light which is within us, that have come the admiration and reverence with which mankind regard the noblest of their own race, who have lifted themselves above the commoner scope of our natures, and as sages and teachers and not seldom as martyrs have emblazoned for us those patterns of greatness which have become for us the banners of our progress. But this world also, which is the Moral World, has its own being, shared in but not created by the others.

And now, having spoken of these several worlds in which our lives participate (not that they are all of the worlds which we share, nor all which exist in independence either of us or of one another, for of this we do not know), there is yet to inquire after the manner of this participation, and whether it exists in other dimensions than in our own lives.

Of the manner of our participation it is first to be said that it is in the character of an action, and of such an action as might mark an actor following a role within which he must assume many costumes and guises and occupy himself with many deeds of different kinds; for which there will be no reason within the occurrences themselves, but only the one reason of the character which is played, such that all the beauty and meaning of the play lies in the characters governed by their one dramatic destiny. So we men share in several worlds, some of which are as the scene, and some as the sensible spectacle of the play, and some as the thought and purpose, and another as that which yields the true purification of tragedy. Furthermore, this purification is a higher thing than is contributed by any of the other elements, so that the catharsis follows beyond the play itself and issues from another source, like a principle of Destiny within a tragedy of the Greeks. And it holds not only of one play, but of many, and thus it is superior to the worlds which make up these in their severalties,—even as the mind of the poet, who composes many tragedies, while he is present in each, yet is he in a better sense the reason of them all, for in his mind resides their reality. In such a fashion the mind of a man is the reason and the reality which gives form to the worlds in which he shares, and makes them to seem as one universe or life.

But whether this be all of their existence, or whether these and other worlds may exist in independence of man is another and more difficult question. This much only we are justified in asserting with respect to the matter, namely, that certain faiths underlie, and of necessity, our knowledge of each and all of the worlds in which we share. Such faiths are: (1) that we men are created beings, and not the producers of ourselves; for without this assumption nothing is intelligible. And (2) that we are not producers of the several worlds of Nature and of Mathematics and of Sense and of Aesthetics and of Morals; for no one of us creates any of these, but rather we are as their discoverers. In a third place (3) we are well aware that there exists in our mind's form a scale of values, the very nature of which is to possess a super-human authority: such that to the idea of truth we can offer no resistance, even if we turn from the thing itself; and to the idea of beauty, none; and least of all, to the idea of goodness, with respect to which is all orientation, such that thinking is choosing always. Men have given to these values, on their positive side, the name and character of God, believing that in them alone lie reason and reality. But whether God is a body having dimensions, or is a mind like unto a man's mind in which all else exists as thoughts within our human minds exist, or whether He is like the poet of many tragedies whose enactment is itself the creation of many worlds, while He is their Destiny and Peace, concerning these questions there are differing opinions.

MARCH WIND

By Shirley Dillon Waite

March wind, the restive,
  Hungry hound,
With winter famine
  In his eyes,
Has cleared the hurdle
  At a bound,
And scampered madly
  Through the skies.
Nosing the ground
  He leads the pack,
And stalks the quarry
  In its hole,
Then sniffs the half-
  Forgotten track
Through rock-ribbed canyon
  To the goal.
Skirting the rugged
  Mountain crest,
Now panting like
  A frenzied thing,
He sinks his fangs
  In earth's cold breast—
Bloodthirsty
  For the heart of spring.

EVALUATING WORD BEAUTY

By Allison Gaw

TO add to the joy of nations and the general advancement of culture there was recently agitated the question, What are the most beautiful words in the English language? The discussion was started by a suggestion in a chatty little pamphlet circulated by a house that publishes a well known dictionary; was seized upon by the enterprising newspaper world, always on the lookout for a popular novelty; and was then re-enforced by the announcement of what purported to be a final list of the ten English vocables of supreme loveliness, compiled "after a thorough sifting of thousands of words" by a gentleman who is not only connected with another publishing house, but has in addition the qualification of having produced a volume of verse. His contribution crystallized the problem into more specific form, and the newspapers again besieged various well known writers and editors for their rival lists of ten, being met by the laughter of some and the complaisant interest of others. Thereupon a Los Angeles newspaper published a list of "the ten ugliest words," alleged to have been adopted by the national convention of the Association of Teachers of Speech—a list neither edifying nor of any apparent pedagogic value. Followed further alarums and excursions by other journalists. With all its petty commercialism the discussion is not without value if it focuses attention on the general principles upon which any intelligent discussion of the matter must be based.

In the domain of beauty—for with the other extreme I am not here concerned—four interesting and colorful lists have come to the attention of the present writer.

Mr. Alfred J. Funk, who is responsible for restating the problem, thus gives us the final result of his investigations and judgment. His words of superlative perfection are: *Dawn, hush, lullaby, murmuring, tranquil, mist, luminous, chimes, golden,* and *melody.*

Another such collection is that of Mr. Edwin Markham, who suggests: *Reverberating, chryselephantine, intelligible, sea-sands, empyrean, Coliseum, nevermore, Plutonian, ideal,* and *California.*

Mrs. Carrie Jacobs Bond, being urged to produce such a list on an hour's notice, supplies the following: *God, love, mother, father, children, home, friend, truth, perseverance,* and *hope.* These she supports on the ground that "beauty colors a life dominated by the family and the home, honor and friendship," adding that "Not only do the words I have selected stand out beautifully in our speech, but the very sound of them thrills and inspires us."

Finally we come to the suggestions of Mr. Rupert Hughes, who nominates: *Immemorial, oriole, threnody, tremulous, blithe, translucent, ivory, gloom, inviolate,* and *blue;* appending the whimsical but significant statement that with regard to the name *Rupert Hughes* his appreciation of its beauty varies inversely according as it appears on an incoming or an outgoing check.

Now, to get back to fundamental premises, an analysis of the principles that must govern such choice will show that any final answer to the question is impossible because, to meet the superlative standard proposed, a word must possess a threefold beauty, denotative, connotative, and euphonic. Of these three qualifications, one test is almost infinitely variable in the responses that may be evoked from the reader or auditor, another is rather widely subjective within certain fairly definable limits, and one is completely stable or, it would appear, at present susceptible of objective measurement.

(1) Denotatively, the word must stand for something that is beautiful in itself. For the great majority of people beauty is most recognizable in the form of a concrete sensuous impression, and for many this impression is strongest when visual, as in the case of a rose or a lily, although others are more affected by other types of appeal, and especially through the sense of hearing, as by music. The most natural linguistic expression of such conceptions is in the form of a noun, an adjective, or an adjectival participle; and it will be noted that among the forty words cited above, only one, Poe's melancholy *nevermore*, falls outside of these grammatical categories.

(2) Connotatively, the word must carry with it suggestions of allied ideas that are beautiful or of moods that are elevated. In fact, it is in these associations and atmospheres that word-magic is largely resident. How widely these vary in the individual listener or reader, and how deeply rooted they often are in childish memories, may be tested by a simple experiment in what psychologists call "free association." Ask that each of a group of people write, immediately and without taking thought, the first word that leaps into his or her mind as you successively enunciate a series of names. Then select several names suggestive of bodies of experience that are more or less common to all, as *Easter, Christmas, Fourth of July, Thanksgiving Day.* Experiments with hundreds of university students justify the statement that such primary connotative responses to *Easter* will generally be divided, according to the temperament and history of the individual, between the trivial "egg" and "rabbit" type of associations and a widely different group of religious origin, such as

"Christ," "church," "altar." For *Christmas*, of equally sacred origin, if the response is not "merry," which is merely an echo of the compliments of the season, the recollections evoked will be occasionally religious, but in the vast majority of cases they will deal with decorated trees, gifts, and the like, marking the extent to which the festival has in practice departed for its first significance. For those who knew the "old-fashioned Fourth," the emotional reactions will probably be in general divided antithetically between keen pleasure in pyrotechnics and marked, often profound, fear of them, with an occasional fainter reminiscence of picnics or patriotic oratory. For *Thanksgiving Day* only can one predict the result with fair certainty, the almost universal response being "turkey," a visual and gustatory image not mentioned in the President's proclamation. Still more strikingly, a series of ordinary Christian names so tested will disclose a wide variety of likes and dislikes, dependent upon the hearer's experiences with persons who happened to bear them. Furthermore, originally pleasing associations with a word on the part of anyone may be overlaid by later disagreeable impressions, as when it has been wearisomely reiterated in a music-hall song that is gasping out its banalities as its popularity slowly decays. Even whole classes of words may pass under a cloud if overworked. Thus the romantic poets of the early nineteenth century discarded much of the poetic diction of the school of Pope, just as the last two decades have seen a somewhat similar revolt against the alleged saccharinities of Tennyson, Swinburne, and their contemporaries. If, then, the candidates for admission to the ten-word list are to create only impressions of beauty, they will have to run the gauntlet of highly complex and variable psychological experiences both on the part of the compiler of the list and of his readers. Clearly, if the compiler attempts to predict in advance the reader's reaction to any such test, his judgment is merely subjective and is hazardous in the extreme.

(3) Euphonically the beauty of a word is somewhat a matter of individual taste. In this purely physical sphere, however, some phonetic categories may be pointed out within which such subjectivity will pretty certainly operate. Back vowels, like the *a* of *father* and the *oo* of *gloom*, are more beautifully rounded than such front vowels as the *e* of *get* and the *i* of *machine*. The voiced continuants, *r*, *l*, *m*, *n*, and *ng*, are the softest and sweetest of the consonants, as appears in *lily*, *reverie*, *moon*, *murmuring*, and *longing*. Of these, in general the *r* and *l* give liquidity and the others sonorousness. Similarly soft is the semivowel *w* of *wall*. The explosive consonants, such as the *g* of *gloaming*, will be welcome in moderation; but all strident combinations of them are aurally objectionable, as in *Brobdingnag*, Swift's cleverly uncouth coinage for Gulliver's land of giants. The sibilants, *s*, *sh*, and *z*, affect various persons somewhat diversely. Among poets, the word *azure*, for example, is a favorite; but Tennyson used constantly to revise his lines to get rid of the sibilant susurrus, a process that he used to refer to as "driving the geese out of his garden." Dissyllables and trisyllables may have a charm impossible to the monosyllable in their opportunity for exquisitely contrasted tone colors. Thus, *Cork* is, for most, less pleasing to the ear than *Killarney*, and *London* than *Cashmir*, *Andalusia*, and *Mandalay*. But the comparative euphonic merits of the last named trio among themselves is much more a matter of individual preference.

Now it must be remembered that for the purpose in hand no one or two of these three qualifications, beauty of denotation, of connotation, and of ear appeal, will suffice, and the union of all three in one word for each of a large circle of people is rare. A night-blooming cereus in full flower is a very lovely spectacle, but for few will its name have connotative or euphonic values. A girl may speak lovingly of her ninety-year-old "grandpop," but the word will not denote anything sensuously beautiful or itself be aurally lovely. To the ear *formula* is beautiful, but its denotative and connotative richness is revealed only to such minds as that of the old German professor known to my youth, who used to conclude a mathematical demonstration with a triumphant "Ach, poys, mathematics is just Heaven!"

If now, in the light of these principles, we examine the four lists already quoted, some interesting contrasts appear. The composer of *This is the end of a perfect day* gives us a series full of ethical and connotative beauties, but with its four abstracts, *love*, *truth*, *perseverance*, and *hope*, it suggests memoranda of possible subjects for songs rather than aesthetic elements in the poet's vocabulary. It largely ignores the claims of euphony, the inclusion of *mother*, *father*, and *friend* seeming especially paradoxical in a song-writer until one remembers that musically the composer thinks jointly in terms of vocal air and instrumental harmony, while the poet is forced to depend on word-music only. Mr. Funk's and Mr. Hughes's lists are rich in euphonic and other values; but it is disappointing to find in the former the acoustically ugly *hush* and in the latter the sensuously jejune *inviolate*. Mr. Markham's list, with its seven polysyllables, smells a little of the anthologist's lamp and is particularly reminiscent of Poe. His *chryselephantine*, a rare word only applicable to a statue covered with scales of ivory and gold, would be recognized by barely one reader in thousands, and *Plutonian* is popularly known only from *The Raven*. This raises the old question whether, when we speak of the "most beautiful," we mean what appeals most profoundly to the highly cultivated taste or what most effectively touches the hearts of the multitude; and here we get into the distinction between the realm of popular poetry, ranging from the simplicity of the folk ballad to the hokum of the "blues" singer, and the higher mood of Milton, Shelley, and Keats. Avoiding both extremes, successful entries in our beauty parade will probably have to come from the territory common to the two domains, and latitude of choice will thus at once be enormously restricted.

If I were compelled (as, thank heaven, I am not!) to select such a list of the ten words most nearly approaching aesthetic perfection in the light of the principles above outlined, I think that without much hesitancy I personally should choose, from the four groups above quoted, *golden*, *melody*, and *ideal*, and probably I should add *lullaby*, *ivory*, *oriole*, and *dawn*. To fill out my ten I should then have further to balance the claims of many others in the four lists with those in a supplementary group of my own, including *royal*, *harmony*, *pearl*, *purple*, *glory*, *splendor*, *willow*, *lily*, *angel*, *carillon*, *musical*, *forever*, *rural*, *ormolu*, *supernal*, *symphony*, *auroral*, *marmoreal*, *marvel*, *funereal*, *melancholy*, *forlorn*, and the like. And when I had finished I should not expect anyone else to agree with me. I should expect to be told by a European, provided my list ever fell under his eyes, that in including *golden* I was a typical nephew of Uncle Shylock, and I should retort that the commercial use of the adjective *gold* had mercifully preserved *golden* for the poets, and that I was largely moved by recollections of Shakespeare's exquisite phrase in *Cymbeline*,

> Golden boys and girls all must,
> As chimney-sweepers, come to dust.

I should be told by many that acquaintance with the oriole is geographically limited, and I should answer that from Wordsworth and Shelley I had loved the skylark for years before that never-to-be-forgotten twilight when I first heard him in the North English hills back of Lake Windermere. I should be told that *lullaby* is reminiscent of the "mammy song," and I should answer that phonetically it is one of the loveliest words in the language and for me carries with it the haunting atmosphere of Titania's bower. I should be told that *dawn* is monosyllabic, and I should answer that even with this handicap it is nevertheless of exquisite tone color and that as to sense it has been a poet's word since the beginning of time. I should be reproached with inconsistency in the admission of the abstract *ideal* into my group, and I should answer that if there is an abstract concept that should reach the souls of the great mass of mankind, it is that of the uttermost conceivable perfection.

At all events, here, all told, in these various selections is an aggregate of over sixty words for the experimentation of aspiring young poets. But let them not be deceived. The word is but the poet's instrument to transmit and re-enforce the idea; and pure beauty is sometimes out of place. Milton wrote as greatly when he described with fitting dissonance the opening of the gates of Hell:

> On a sudden open fly
> With impetuous recoil and jarring sound
> The infernal doors, and on their hinges grate
> Harsh thunder. . . .

as when, in liquid tones, he dwelt upon the swinging asunder of the portals of Heaven:

> heaven opened wide
> Her ever-during gates, harmonious sound
> On golden hinges moving.

Neither let any think, as some have done, to write a real poem by the mere graceful concatenation of a series of words so listed, with all their disparate backgrounds and diverse spiritual *timbres.* That outdoes the naiveté of the schoolboy who, being asked to write a heroic couplet, compounded one of three clauses, the first in the style of modernistic verse, the second of ballad simplicity, and the third sheer boy:

> Her eyes are jade, her neck is like the swan,
> And that's the neck I do my necking on.

Let no novice think to ensnare the muse with any device of word-beauty only, however lovely. She is a shy, retiring divinity, stealing to earth in response to the summons of high thought and nobility of mood, and on her descent she brings with her her own celestial harp and breathes to it her ethereal rhapsody.

OF WHAT NATURE IS THIS LIGHT?

By M. Whitcomb Hess

What nature? Knowledge has no power to say,
Nor all the weary cumberers of earth
Know in their bosoms, slumbering by day,
        The radiance of its birth.

But these things are of heavenly begetting:
The grain of mustard seed, the narrow gate,
The Light that has no rising and no setting,
        Alive, compassionate.

THE SOURCES OF BOWNE'S PRAGMATISM

By EDWARD T. RAMSDELL

IN THE thought of Borden Parker Bowne two streams of influence appear in juxtaposition—German rationalism and American pragmatism. The former was his inheritance; the latter he acquired. His early training was largely in the Kantian tradition, and his work in systematic metaphysics rested consistently, throughout his life, upon rationalistic method. At an early stage, however, Bowne fell under the attraction of the pragmatic point of view, and quickly adopted its humanistic method in the field of moral and religious philosophy. An analysis of his writings, therefore, reveals the parallel use of rationalistic and pragmatic methods through the greater portion of his work. As we have seen in an earlier paper, Bowne never succeeded in fully harmonizing this twofold use of method. He simply moved from one point of view to the other, as the subject at hand might require. In so doing he was but reflecting the two major interests of his life: speculation and religion. Wherever the two points of view seemed to conflict, primacy was inevitably given to the religious and pragmatic. This characteristic of his thought is clearly shown in such a typical statement as the following:

> We do not ignore the facts which make against the view (the religious view of the world); but we set them aside as things to be explained, yet which must not in any way be allowed to weaken our faith.[1]

The chief sources of Bowne's rationalism, as has been well understood, were his immediate teachers, Martin, Lotze and Ulrici, and his study of Kant and Herbart. No attempt, however, seems heretofore to have been made to trace the source of his pragmatism. It is that which defines the object of the present paper.

---

[1] *Theism* (N. Y.: American Book Co., 1902), p. 23.

It is the thesis of this paper that the most direct and decisive pragmatic influence upon the thought of Bowne came from William James. This is to recognize fully the importance of the general Kantian background of Bowne and of other contributory influences, but it is especially to affirm that the contact with the work of James was preeminently the one that awakened his interest in the pragmatic point of view. The probability of this thesis rests, in the first place, upon the fact that Bowne's first out-and-out use of pragmatic method in the field of moral and religious belief coincided with an admitted reading of James' first important, though somewhat nebulous, formulation of pragmatic doctrine, and, in the second place, upon what appears to be specific indebtedness to that formulation.

The first of Bowne's writings to suggest contact with the pragmatic point of view was an article "Moral Intuition vs. Utilitarianism," published in April, 1873.[1] Its purpose was to indicate the elements of truth in both intuitionism and utilitarianism. Although Bowne accepted consequences as the test of conformity to moral principles, he held to those principles as the *a priori* product of the moral consciousness. According to the treatment of this early article, therefore, consequences do not make an act right or wrong; they only show whether there has been conformity or lack of conformity to the principle involved. This contact with Mill and the Utilitarian School, therefore, although clarifying Bowne's conception of the importance of consequences in moral theory, did not in itself lead to the use of pragmatic method, although of course it must be counted as a background influence.

---

[1] "Moral Intuition vs. Utilitarianism," *The New Englander*, 32 (1873), 217-242.

Aside from this article on intuitionism and utilitarianism in 1873 there is no other suggestion of the pragmatic point of view in Bowne's writings until six years later. And at no point in this first period of his published work, from 1872 to 1879, is there any actual use of pragmatic method. It is striking indeed, therefore, that in the *Studies in Theism*, published in 1879, he should suddenly adopt an out-and-out pragmatic methodology in the field of moral and religious belief. If the *Studies in Theism* represented Bowne's first treatment of religious belief, it might be supposed that the use of pragmatic method was simply incidental to that first treatment, and that had he treated such belief earlier pragmatic method would have appeared earlier. That this was not the case, however, is shown by the fact that as early as 1872 Bowne began writing on religious questions. In that year his article "Aspects of Theism" appeared in *The New Englander*. Likewise it is clear that at least parts of the criticism of Spencer, which Bowne was doing in these early years, were done in the interest of religion. The sudden appearance of pragmatic method in the *Studies in Theism* must, therefore, be accounted for on some other basis.

The most probable explanation of the sudden resort to pragmatic method is to be found in an article by William James. This article—"Remarks on Spencer's Definition of Mind as Correspondence"—appeared in *The Journal of Speculative Philosophy* in January, 1878,[1] almost a year and a half before the publication of Bowne's *Studies in Theism* (the preface is dated May 5, 1879). The subject of the article was sufficient to attract the attention of Bowne, for Spencer had served for some time as a ready object for his critical pen. But the article was not alone a criticism of Spencer; it was to prove to be James' first important, though not yet fully articulate, formulation of pragmatic doctrine. Professor R. B. Perry, in his *Collected Essays and Reviews* of James, speaks of this article as "of unique historical importance as perhaps the key to all of James' later thought."[1] That Bowne was familiar with it is clear from his own specific reference. The reference occurs as a footnote in the discussion of the determinative character of interests and feelings in the life of the mind, and reads: "This point has been very happily put by Dr. James in the 'Journal of Speculative Philosophy,' for January and July, 1878."[2]

---

[1] Reprinted in: James, William, *Collected Essays and Reviews*, ed. by Ralph Barton Perry (N. Y.: Longmans, Green & Co., 1920).

We know, therefore, that Bowne read the article in question and that the book in which he refers to it contains his first use of pragmatic method. Further, certain parallels between Bowne's treatment (in the chapter on "Knowledge and Belief") and the article by James would seem to indicate specific indebtedness. In the first place, Bowne's description of the mind as a unity of vital interests and his doctrine of the determinative character of these interests in mental development have their parallel in James' treatment. In the article by James we read:

> "Mind," as we actually find it, contains all sorts of laws—those of logic, of fancy, of wit, of taste, decorum, beauty, morals, and so forth, as well as of perception of fact. Common sense estimates mental excellence by a combination of all these standards, and yet how few of them correspond to anything that actually *is*—they are laws of the Ideal, dictated by subjective *interests* pure and simple.[3]
>
> We are all fated to be *a priori* teleologists whether we will or

---

[1] Loc. cit., pp. vii-viii.

[2] *Studies in Theism* (N. Y.: Phillips & Hunt, 1880, 2nd ed.), p. 66.

[3] Loc. cit., *Collected Essays and Reviews*, p. 46.

> not. Interests which we bring with us, and simply posit or take our stand upon, are the very flour out of which our mental dough is kneaded.[1]

Bowne, dealing for the first time with the same subject, writes:

> When the human mind comes to self-consciousness, it becomes aware of many interests. There are practical, speculative, esthetic, and moral interests. These are the motive-powers of the mind, and outline its development.[2]
>
> The whole mental life . . . springs out of feeling. It is extremely doubtful if a purely perceptive being, without any subjective interests, could attain to rationality, even if its physical existence were secured. Indeed, it is demonstrable that our sentiments outline and control all mental developments.[3]

In the second place, Bowne's use of the "it works" criterion similarly has its parallel. James wrote:

> How shall I say that knowing fact with Messrs. Huxley and Clifford is a better use to put my mind to than feeling good with Messrs. Moody and Sankey, unless by slowly and painfully finding out that in long run it works best?[4]

Bowne, using this criterion for the first time, states:

> We conclude, then, that it is no objection to a belief that its grounds do not admit of satisfactory formal statement, provided always that it works well.[5]
>
> Those views, therefore, of man and his relations which must develop and dignify human nature, and which work best in practice, are at least presumptively true.

Another close similarity between Bowne's treatment and that of James is to be found in the notion of coerciveness as a criterion of reality. Although not subsequently elaborated by Bowne, the idea is worth noting here as one further indication of the closeness with which he followed James' article. James' point is made in the following paragraph:

---

[1] Ibid., p. 61.
[2] *Studies in Theism*, p. 69.
[3] Ibid., pp. 65-66.
[4] *Collected Essays and Reviews*, p. 66.
[5] *Studies in Theism*, pp. 64-65. D
[6] Ibid., p. 75.

> The only objective criterion of reality is coerciveness, in the long run, over thought. Objective facts . . . are real only because they coerce sensation. Any interest which should be coercive on the same massive scale would be *eodem jure* real.[1]

Bowne, developing the same idea, writes:

> The final test of reality in perception is, that it compels and coerces our sensations. . . . If, then, there is any other element in the totality of our experience which equally coerces our belief, and which, when denied, invariably comes back, then there is the best ground for saying that in such experience, as well as in sense-perception, we come in contact with something not ourselves.[2]

There is, of course, the possibility that these parallels indicate a common source for the two writers rather than indebtedness on the part of Bowne. But there appears to be nothing to substantiate that possibility. There seems to be no work that could have been a common source to the two writers for *all* of the elements that are common to both. Thomas Brown, in his *Lectures on the Philosophy of the Human Mind,*[3] and Shadworth Hodgson, in his *Time and Space,*[4] and Wilhelm Windelband, in his essay "Ueber Denken und Nachdenken,"[5] had all been investigating the influence of feelings and interests in the mental life, but none of these, even had they been known to both Bowne and James, could account for *all* of the elements common to both. Further, James specifically acknowledged Charles S.

---

[1] *Collected Essays and Reviews*, p. 67.
[2] *Studies in Theism*, p. 78.
[3] Vol. II, Chap. 35 (Andover: Mark Newman, 1822).
[4] Chap. 5 (London: Longmans, Roberts & Green, 1865).
[5] *Vierteljahresschrift fuer wissenschaftliche Philosophie und Soziologie*, 2 (1878), 265-297.

Peirce as the one to whom he was indebted for the pragmatic point of view.[1] There is no indication, however, that Bowne had any contacts with, or that he was in any way acquainted with the work of, Peirce.

Because, therefore, Bowne's first use of pragmatic method coincided with his reading of the article by James, and because of the parallels between the two, it is difficult to avoid the inference that James was responsible for stimulating Bowne's interest in pragmatic method if not actually furnishing the substance of the method. Students of Bowne in his later years have reported that he was conscious of no particular indebtedness to James. Such a judgment on Bowne's part is probably to be explained by the fact that he came to regard, however inaccurately, the pragmatism of James as simply a restatement of Kant's doctrine of the primacy of the practical reason. We must conclude, therefore, that the most direct and decisive pragmatic influence upon the thought of Bowne was that of William James. With this point we have also made clear that Bowne's pragmatism did not have priority over that of James as several writers on Bowne have affirmed.

In considering other factors of influence we shall look first to the Kantian background. Bowne undoubtedly thought of his pragmatism as continuous with the doctrine of Kant. In the *Studies in Theism,* in which we found the parallels with James, he clearly implies the identity of his doctrine of interests and feelings as determinants of belief with the teaching of Kant. In the course of his treatment he writes: "It is not without ground, therefore, that Kant insisted upon the primacy of the practical reason, and the subordinate character of the speculative."[2] In an earlier paper we have already seen that Bowne was not correct in assuming the identity of his doctrine with that of Kant. Once stimulated to pragmatic lines of thought, however, it is of course clear that he may have found the phrase "primacy of the practical reason" very suggestive. Further, he may have been impressed with Kant's use of the term *interests*, although, if so, he quite ignored the rationalistic qualifications imposed by Kant. Bowne's doctrine of interests suggests far more the line of development of William James.

---

[1] See "Philosophical Conceptions and Practical Results" (1898), in *Collected Essays and Reviews,* p. 410.

[2] *Studies in Theism,* p. 74.

The point at which Bowne most clearly found pragmatic inspiration in Kant is in the latter's treatment of the primacy of the practical reason. That that treatment suggested Bowne's statement of method in religious thought is evident. But it is important to note that this particular influence of Kant did not show itself in any writing of Bowne's until some six years after the reading of the article by William James to which we have already referred.[1] Kant was defending the independent validity of the moral law as an *a priori* principle of pure practical reason. Any propositions inseparably connected with the moral law (as such an *a priori* principle), as Kant believed the postulates of freedom, God, and immortality to be, though not capable of being established by theoretical reason, may be regarded as sufficiently authenticated, provided they do not contradict theoretical reason ("*indessen dass sie ihr auch eben nicht widersprechen*"[2]). The similarity of Bowne's formulation, though it entirely neglects the *a priori* requirement stressed by Kant, is sufficiently striking to suggest its source:

> Whatever the mind demands for the satisfaction of its sub-

---

[1] "The Logic of Religious Belief," *Meth. Quart. Rev.*, 66 (1884), 642-665.

[2] Kant, Immanuel, *Saemtliche Werke*, ed. by Karl Vorlaender (Leipzig: Felix Meiner, 1920-1922), Vol. II, *Kritik der praktischen Vernunft*, p. 155.

> jective interests and tendencies may be assumed as real, in default of positive disproof.[1]

The influence of Lotze (Bowne studied under Lotze in 1874) would never in itself have directed Bowne to pragmatic method, although certain practical emphases of Lotze are reflected in his thought. The insistence that philosophy keep close to life and experience had its influence on Bowne, and certainly strengthened the empirical element in his rationalism. Further, Lotze's dictum "reality is infinitely richer than thought,"[2] though spoken against a distinctly rationalistic background, very evidently provided the source for Bowne's "Life is richer and deeper than speculation."[3]

Similarly the influence of Herbert Spencer (Bowne wrote several articles and a book on the philosophy of Spencer) would not alone have led Bowne to pragmatism. It seems very probable, however, that the study of Spencer gave him one of his first contacts with the evolutionary doctrine. And the influence of this contact, once Bowne had been stimulated to an interest in pragmatic method, soon reflected itself in his religious writings. One particularly striking indebtedness is to be found in the conception of belief as a cosmic product. Spencer's view is stated in the *First Principles* (which Bowne reviewed in *The New Englander* in January, 1872) as follows:

> He (man), with all his capacities, and aspirations, and beliefs, is not an accident, but a product of the time.... He, like every other man, may properly consider himself as one of the myriad agencies through whom works the Unknown Cause; and when the Unknown Cause produces in him a

---

[1] Loc. cit., *Meth. Quart. Rev.*, 66 (1884), 652. See also *Theism*, p. 18.

[2] Lotze, Hermann, *Metaphysics*, English translation ed. by B. Bosanquet (Oxford Univ. Press, 1887), Vol. I, p. 178.

[3] *Theism*, p. 18.

> certain belief, he is thereby authorized to profess and act out that belief.[1]

The similarity of Bowne's later statement of the same idea is evident:

> We do hold that a general belief renders a corresponding reality highly probable, even when no sufficient formal defense is possible. Such a belief represents the total outcome of a race-experience, the impression which the universe has made upon us.... It is the way in which reality manifests itself in us. Our feelings are the subjective side of the universe. Upon this point we are in full accord with the evolutionist.[2]

Other contributory influences played their part in the full development of Bowne's religious pragmatism, although the main lines of that development were drawn from the sources which we have here indicated. No influence, however, as we have endeavored to show, was so directly and decisively responsible for awakening Bowne to interest in pragmatic method as that of William James.

---

[1] Spencer, Herbert, *First Principles of a New System of Philosophy* (N. Y.: Appleton, 1864), p. 123.

[2] *Studies in Theism,* pp. 76-77. See also *Theory of Thought and Knowledge* (N. Y.: Harper, 1897), p. 377.

A FRAGMENT OF THE RUSSIAN REVOLUTION

By OLGA KOKSHOROVA

A GOLDEN beam of the setting sun passed through the iron bars of my window. I arose from the damp straw mattress of my bed, and, holding myself by the damp walls of the cell, reached the window.

It was the seventh day since I was locked in this little, dirty cell—the seventh day since a crumb of bread or a drop of water touched my lips. Outside it had been raining all week long and the walls of the cell were covered with slime. Like a big gray shadow, the dampness seemed to spread around me and penetrate the very center of my soul. No one had come to see me during those seven days. Looking through the iron bars of the little square window, just above the ground I could see the gray figures of the prisoners, passing three times a day across the prison yard to the dining room. Gray were the sky and the prison yard, gray and ghostly looked at me the faces of the prisoners. Oh! how I wished to die in those days of darkness. The golden beam of the setting sun seemed to me a message from some other world.

Holding myself by the iron bars of the window, I saw the azure sky above the prison wall and a blue swallow gliding high in the air, almost touching with its wings the red and golden clouds. As soon as I looked through the window I recognized the scene that was before me; I knew that I had seen this azure sky, the golden clouds and the swallow sometime ago. Just where? Oh, yes; I remembered it clearly. It was only a few months ago in China where

I had been visiting my sister. I had just finished playing tennis and had lazily dropped myself into an easy rocking chair under a blooming mimosa, where my sister and her husband were drinking cold cocktails. My sister was absorbed in a novel, my brother-in-law in a newspaper; and I, slowly sipping my cocktail through a straw, unconsciously looking at the azure sky, watched the floating clouds, wondered how soon the dinner would be ready. I was a little hungry and very anxious to be through with the meal, since I had arranged with a group of young people to see the Chinese towns that evening. We usually dined sharply at six o'clock. That was the rule of my brother-in-law. "Is it not six yet?" I asked, growing impatient. "The swallows are flying. They usually fly at this time." My sister laughed, "You seem to be hungry today." She rang the bell ordering the dinner and turning toward her husband she said, "It is ten minutes to six; let us dine a little early today, Lola is our guest, and she seems to be hungry." We all went into the house without looking at the fantastic design of the clouds artistically painted by the inclining beams of setting sun, without paying any attention to the flight of the blue swallow and without noticing the graceful nodding of the blooming mimosa.

And now, here in this dirty cell, dying from starvation, half-eaten by the lice, I fully appreciated the little piece of sky, the clouds and the swallow. I recollected the graceful nodding of the mimosa, its delicate rosy blossoms that shrink and die from a single touch of a finger. In my memory the mimosa stood like an enchanted princess wrapped in a rosy cloud.

It seemed to me I heard the musical rustling of leaves, the whisper of the soft wind and then the voice of my grandmother telling an old Russian folk tale of a blooming-flower. In my childhood I heard this folk tale many times.

It says that once a year in the middle of the night, in the wilderness of the forest, a flower is blooming that radiates light of different colors. One who could see the light of this flower would become king of the world and all his wishes would be granted. However, this flower is guarded by dwarfs, mermaids, witches and many other spirits of the forest. Any one who wishes to see this flower will have to pass through fire and through darkness where the mystery of night is peopled with witches that grin with their sharp, long, yellow teeth and mermaids that beckon with cold and charming smile. He must be strong in spirit to overcome fear, to face the unknown and with faith in God to proceed directly to his goal. Then he will find the flower. Otherwise he may be eaten by witches and dwarfs or dragged into swamps by the mermaids.

I saw myself, out of this dark cell, back in our estate near the woods, again a little girl in my small white bed. Grandmother had just finished the tale and left the room. It was a stormy night. The wind almost carried away the roof of our house. Every minute the zigzagging serpent of lightning cut through the sky accompanied by the roar of thunder that gave me no chance to sleep. A sudden thought that on a night like this that flower must be blooming brought me out of bed. I slipped out through the window into the garden and a few minutes later was in the woods—in the woods, on such a night, alone, a child of ten. The thunder was rolling, the big drops of rain were falling on my bare shoulders. It seemed to me that the trees were crying, nodding almost to the ground. It is impossible to describe the beauty, the night and the terror of a stormy night in a forest. Shivering from the fear of the unknown, I went ahead toward the wilderness of the woods, looking for the radiant light of the "blooming-flower." I do not remember how I found my way home; but the mysterious beauty of a stormy night in the forest will remain with me forever.

Since that night, the radiant light of the "blooming-flower" has been the guide of my life. Slowly, from the enchanting flower of the forest, it became the flower of knowledge, its light the light of the aesthetic apprehension of the world.

My "blooming-flower," how could I forget it in the days of darkness? Through the darkness and fire, through the ignorance and sickness, even through the prison and field of war we must pass before we can reach the radiant light of knowledge.

Thus I mused, standing behind the prison window. I stretched my hand toward the setting sun that brought to me the message from the "blooming-flower"—the flower of glory and hope. But the sun sank behind the horizon and I was left again in the darkness. However, it seemed to me that through the darkness of the night I could see the reflection of the radiant light.

THE SCIENTIFIC CONCEPT OF REALITY

I. COPERNICUS AND DESCARTES

By the late HERBERT WILDON CARR

THE personalist principle which I have been mainly concerned to interpret is the theory that the universe consists primarily of persons, not things. The naturalist principle which is opposed to it seems to acquire overwhelming force whenever we contemplate the reality of the physical world as science conceives it. What makes the concepts of modern physics so impressive is that alike in time and space we are able by absolutely reliable methods and with instruments of perfected precision to explore distances and intervals infinitely disproportionate to the range of our personal interests and effective actions. Is there any rational meaning, we ask ourselves, in which we can reconcile the inclusion of the universe discovered by astronomy, chemistry, and physics in the universe of unit individual persons? Is it not almost ludicrous to affirm that a person, functioning as a material organism, attached to an insignificant planet of an insignificant star in a system containing millions of millions of stars, is real in a deeper, truer, and more ultimate meaning than the universe revealed to his amazed understanding? The concept of the physical universe is irresistible. The moment we have formed it, it takes possession of our mind, for it is the revelation of a reality infinitely transcending our transient existence, which shrinks before it into insignificance. This constitutes the strength and the compelling force of the naturalist interpretation, and it is vain to oppose it until reflection reveals to us the true nature of the scientific concept and its abstract mathematical basis. We then see that our concept of physical reality rests on a purely quantitative basis, completely abstracted from quality. It is metaphysics which destroys the impressiveness of physics. Far-sighted, indeed, was the warning to physics to beware of metaphysics. We must now look seriously at the metaphysical argument.

The mind which knows nature must, at least in one of its essential attributes, be more comprehensive than the universe it knows. The reality of the thinker must transcend the reality of his thought. It is important, however, that this should not be misunderstood, for otherwise the statement, even if irrefutable, can only irritate without bringing conviction. It is not meant that I cannot think a greater reality than myself, or that I cannot think a reality which does not ultimately depend on myself and refer its existence to my state of consciousness. This form of the solipsistic argument is continually intruding itself in philosophy, but it has no relevance to our present reasoning. There is no limitation whatever to our power of ideally representing an external reality. When, however, we direct our reflection to the reality of physics, we find that concept of it suffers from a fatal defect: it is abstract in a meaning which takes from it its most essential requirement. Reality must have a qualitative basis, and scientific reality has none. Pure nature, the physical world, as modern science presents it, is a radio-active system of frequencies, vibrations, wave groups, attractions, repulsions. In itself it has no sensible qualities whatever, neither sound, nor color, nor heat, nor cold. It is absolutely indifferent to sentience, to emotion, to passion, to love and hate, to beauty, to goodness. But this is not its defect. Where it fails us is in the complete absence of any principle by which out of its quantitative character quality can be generated. The naturalist theory requires that there should be such principle, and there is none. Naturalism requires it, for naturalism is the theory that physical reality as it is conceived by science is original, that life and mind are late emergents, and, generally, that the psychical is posterior to and dependent on and conditioned by the physical.

In order, then, to understand the personalist argument it is necessary to follow the history of the rise and development of the modern concept of nature.

The era of modern science begins with the accomplishment of the Copernican revolution. Copernicus had done no more than demonstrate the advantage for astronomical observation of adopting a heliocentric in place of a geocentric principle. This, however, had given birth to a new idea, one which, as the Catholic church was not slow to discover, was to alter completely man's mental outlook and his moral and religious attitude toward the world. Until then it had been impossible to think of the universe as modern science now represents the material world, a universe in which the earth is merely one of myriad material masses, in a space to which the mind can set no limits, and in which no world or world system has special privileges over the others. There were scientific theories before Copernicus—astronomy was never wholly abandoned to theologians, astrologers, and magicians—but the idea of an infinite, or at least unbounded, physical universe, external and independent, indifferent to the spiritual dramas which may occur within it, was new to thought. For the ancient thinkers the earth had seemed to be poised between upper and nether worlds of unknown extent where abode the controllers of human destinies. Lucretius might think of the gods as far off and little concerned with human interests; Dante might think of heaven and hell as closely interlinked and intimately interwoven with earthly existence; Milton might extend in imagination the wide range of natural law and order won from a precedent chaos; but all these ideas of cosmos, even the most materialistic, could be set forth only in a frame-work of theological conceptions. The ordinary, commonplace, scientific view of the physical nature of reality, its spaces and times, its masses and movements, has been formed within the very short period of human history which has elapsed since Copernicus.

There is a principle of relativity in the spiritual world which runs parallel with the principle of relativity in the natural world. Just as the observer of a natural event, if he would coordinate it with other events, must take the system of reference to which he belongs to be at rest, and is thus the necessary victim of an illusion, so whenever we have made an idea our own and find in it the satisfaction of consistency and the feeling of adequacy, at once the idea assumes an aspect of self-evidence, and our own activity in thinking appears as the effort to free the mind from an obscurity blocking the entry of a light of nature. In this, also, we are victims of an illusion. There is no light of nature. Every image and every concept is a positive achievement of spiritual activity.

The necessary activity of the mind in the production of all its images and concepts is a truth which humanity has been slow to attain and finds difficult to realize. It is common today—and it was still more common in the last century—to regard modern science as an emancipation rather than as an achievement. It was proclaimed as enlightenment. It was "the light which lighteth every man" so soon as the mind is cleared from the obfuscation of theological prejudices and religious superstitions and able to look out on the world with ingenuous directness. The reason is that the scientific view of reality, when we take the practical standpoint of science, seems so effortless, so natural, so perspicuous, that we find it difficult to think that mental effort is exerted in constructing concepts and that it is not enough to disperse ignorance. In this way there is set up in our mind what Bacon described as an Idol of the Theatre. It invests our outlook on the world with the character of a natural Reason, and by it all adverse theories are judged. This Idol must be cast down from the altar if we would follow with full understanding the historical evolution of the idea of the physical universe.

Human thinking is always integral. It is never fragmentary or piecemeal. Man does, indeed must, in all thinking attend to detail, but behind all abstract thought there is always the perfectly harmonious and complete concept of a whole, one and indivisible. It is a primal condition of conscious experience that the range of conscious activity be self-centered, self-enclosed, and completely coordinated. The advance of science and philosophy, the development of scientific and philosophical concepts, is not from chaos to natural law, from disorder to order, it is from order to order, from principle to principle.

I. Descartes' Theory

The concept of the physical universe first attained clear and distinct expression in the philosophy of Descartes. It is usual to separate the metaphysics of Descartes from his physics, and generally the physics is discarded by philosophers and discredited as a scientific speculation with little more than an antiquarian interest. Yet metaphysics and physics are really inseparable. Descartes' whole philosophy was the outcome of his reflection on the problem presented by the Copernican theory. The discovery that the earth moves led to the new method of doubt, for it implied that the senses deceive us and that we are by nature victims of an illusion. It also led to the new criterion of truth, the criterion of self-evidence in the idea, for it implied that knowledge is not direct intuitive sense awareness but the product of reflective thinking. Further, it led to the theory of the innateness of ideas, for self-evidence cannot be adventitious.

The whole of reality was comprehensible in Descartes' view in three concepts or ideas, each clear and distinct and evident, each innate, each implying existence in its essence. These were (1) the self or thinking substance, *res cogitans*, the I who in thinking am; (2) God, the idea of perfect being, universal, individual, infinite; (3) the physical universe, the idea of extended substance. This threefold division characterizes Cartesianism in every form of it. It attains the summit of logical consistency in Spinoza's conception of one substance, God, existing in the two mutually exclusive and yet mutually complementary modes of essential attributes, thought and extension.

The physical world is an unthinking reality, purely mechanical in its activity. It is external not merely to the mind which contemplates it but external in its intimate nature, for the relations of its parts to one another are external relations. The physical world presents to the reflecting mind two problems: first, the nature of its substantiality, and second, the nature of its activity. That is to say, the physical world has materiality and mobility. The constructive physics of Descartes was directed towards attaining a clear and consistent conception of matter and movement. In the case of each concept, the concept of matter and the concept of movement, geometry provided the clue. He applied, in fact, the principle of his own research in analytical geometry to the problems of physics. He had discovered that the properties of a geometrical figure are generated by the act which constructs the figure. Thus the equality of all the radii of the circle is seen to follow immediately from the mode by which the circle is generated when a radius is rotated round a fixed center.

We are accustomed today in ordinary thought to dissociate space and time from matter and movement. For us space and time are the container, matter and movement the content. Descartes with profound philosophical insight declared that such a dissociation led to a mathematical absurdity; that the idea, for example, of pure space or void or vacuum is a self-contradictory idea. It destroys the concept of material substance and it makes movement inconceivable. His argument was as simple as an axiom of Euclid and as conclusive. The sole ground, he pointed out, on which we attribute materiality to anything is its spatial quality, that is, its extension. We may imagine a material thing to be colorless, odorless, tasteless, intangible, but if we imagine it inextended we are abstracting what is essential to its materiality. Mental things—ideas, concepts, images—are immaterial just because their reality is not spatial.

Against this it was argued that there is a difference between the extension of a spatial thing and the space the thing occupies, for extension is variable but space is constant. A material thing, for example, may shrink or expand; in that case is it not its extension which decreases or increases? To this objection Descartes replied that the extension of a material substance is constant and invariable and that what varies in expansion and contraction is not extension but disposition. When, for example, a sponge is squeezed, its extension and the extensions of the water squeezed out of it are unaltered; what is changed is the disposition of the two bodies. Material substance, therefore, is not something contained in space but anything possessing the spatial property of extension.

There follows an important consequence for the concept of movement. Movement cannot be the sliding about of something in space which itself does not move; it must be the relative change of position of extended things. For if we suppose that a material substance, when it moves, leaves its extension behind, this is the same thing as to suppose that it goes out of existence. Moreover, we cannot escape the obvious dilemma we should be confronted with if we assumed that there are two extensions: one which belongs to the matter which moves, the other to the space in which it moves—one extension, therefore, which moves, and one which is immobile.

The physical universe, therefore, was conceived by Descartes as consisting, so far as its substance is concerned, in extension, and, so far as its activity is concerned, in movement. Void or vacuum has no existence in fact and no positive content in idea .

Thus, by reflective abstraction or, to use his own term, by meditation, Descartes attained to a simple concept of the substance of the physical universe. We might describe it as a concept of space occupancy, taking care, however, to avoid dissociating the concept into two concepts, a container and a contained. This matter of physics he named extension. Equally direct and simple was his concept of the activity of the physical universe. Activity is not an attribute which material substance possesses by right or in its own nature. It is not implied in it as it is, for instance, in the concept of thinking substance. The activity of the physical universe consists in movement, and movement is an activity imparted to extension. Movement he conceived to be mechanical in its action and constant in quantity. Applying this principle he worked out in his physics the scheme of the whole universe. The imparting of movement to extension must have been, he reasoned, the original act of creation. It was the only thing required in order to bring the world into existence. The variety of nature could be accounted for down to its minutest details by following out the automatic consequences of the introduction of movement into the plenum.

To understand Descartes' theory we must carefully avoid making a distinction which is familiar to us but was unrecognized by him. We are accustomed to consider movement as simply an effect and to seek its cause in something which is not movement but force. Descartes, under the dominance of mathematical ideas, treats movement as simple, quantitative, and calculable. He rejected the Epicurean theory, then being revived by his distinguished contemporary, Gassendi, that movement is the non-resistance of the void to the atoms. In his view there is no void, and movement must therefore take the form of a vortex. The mathematics of vortices, therefore, gives Descartes his physics. It interprets for him the Copernican theory. The earth is not moving in any sense which need disturb the catholic tradition. It is the whole universe which is moving, but moving as a vortex system, and its parts, therefore, are always changing their position relatively to one another. The earth is in the vortex of which the sun is the center, and is being carried in that vortex much as a ship is carried along by a stream. For us who inhabit it the earth is not moving, and the sun is only fixed in the meaning that it is in the center. In other words, the physical universe instead of being conceived as masses, some of which are fixed and some of which are moving in a void, is conceived as self-subsistent in its materiality, and as self-contained in its activity.

Working on the principle of the conservation of movement Descartes thought he held the clue to the interpretation of all the variety which the physical world displays. Movement imparted to extension must, he reasoned, have the effect of fracturing the plenum along rectangular lines. The continuation of movement must cause the separation of the cubes so formed and ultimately result in grinding the cubes into spherical bodies, the interstices being filled with subtle matter, a cosmical dust, as it were. In the end this must lead to the formation and segregation of three kinds of matter. The subtle matter, he argued, would be pressed into the center of the vortex, forming the luminous mass of the sun; the perfectly rounded spheres would fill the firmament and compose the transparent matter of the sky; the planets were a grosser opaque matter, formed, he thought, by the clotting together of a scum on the surface of the sun, which had been flung off, like a stone released from a sling, and had travelled outwards till arrested in their orbit by the vortex movement. The sun spots, he conjectured, were such formations.

Such was Descartes' conception of the principles which govern the physical universe in accord with the Copernican theory. He applied these principles to the microcosm equally with the macrocosm. The whole of nature, organic as well as inorganic, was, according to his theory, the automatic and mechanical result of the introduction of movement into extension. One identical principle would explain the celestial movements, the comets, gravitation, the systole and diastole of the heart, the circulation of the blood, the contraction and relaxation of the muscles, and even the mysterious properties of the lodestone.

The significance of this bold and original work of ideal construction is that it formulated definitely and finally the principle of pure mechanism in science, and rationalized the assumption, ever since accepted as a postulate by materialists, that the physical world confronts us with an existence effectively independent and essentially purposeless. In the progress of science during the period which has elapsed since Descartes and Galileo, this pure objectivity of the physical world has come to be regarded as the bedrock of the scientific position. It is true, indeed, that for Descartes this physical existence was idea, and he had to meet the sceptical inquiry: How do we know that any idea is true, or that the reality we postulate corresponds in any way with the idea? Descartes' reply would hardly suffice to satisfy a modern sceptic, and it shows that a certain remnant of medievalism still clung to his conceptions. It was that the idea of material substance is an innate idea, that consequently its origin derives from God, and that God is not a deceiver.

REFLECTIONS OF A PERIPATETIC

III.

By THE EDITOR

Twenty Years After

THE guns have long since fallen silent on the Marne. The white crosses pierce the hillsides like soldiers standing at attention. But the numbers are so great as to appal the imagination.

The people, once propagandized to identify the vaunting whims of ambitious militarists and politicians with a crusade for righteousness, have slumped to a state of moral indifference and ineptitude.

The captains and kings have mostly departed, if honest, with a sense of futility in achievement, if dishonest, with querulous wonder that their greatness is so soon forgotten. Already the vultures of calumny have begun to feed upon their reputations and in successive memoirs they disclose each other's weaknesses and errors.

By remote farm and hill and even in the untractable Arabian desert have arisen those monstrous memorials that war always brings. In most cases, the vanity or the vengeance of war comes to expression, and seldom are the sacrificial elements purely remembered. In striking contrast to all that Edith Cavell stood for in life is that expressed on her memorial hard by the Place de la Concorde.

The fine frenzy that bound comrades in devotion to great ideals has broken under the strain of peace and turned to back-biting and suspicion. Men who in the stress of conflict vied in risking life for each other, and competed in paeans of mutual praise, have adopted as a national motto, *Sauve qui peut*, save himself who can.

Of all the participants, France seems the most defeated. The valor of her dead is not matched by the living. The destruction of her brightest and best put upon her a scar that only generations of peace can restore. But her greatest defeat is moral and spiritual. Could she have arisen to a spirit of magnanimity in dealing with her foe, she would have conquered and have remained the spiritual mentor and overlord of Europe, the establisher of a hundred years of peace. She fell through her own selfish rapacity and revenge. Her punishment is to remain the victim of petty politicians, a house divided against itself, hating and hated of all, an instance to our modern day that the judgments of God are a great deep.

England, aspiring still to world sovereignty, sees the power of the suzerain slowly slipping her grasp in America, in Australia, in India, in Africa, because disguised under a profession of benevolence her most forceful intention has been exploitation in the interest of trade. Her reputation for sportsmanship and honesty, which has been the cement of the Empire, she now holds lightly.

Germany, having come through purging fires of suffering and poverty, feels the solidarity of the persecuted. Moved by the ogre of fear, she parts with her ancient concepts of freedom. Thousands of men constantly marching sing with a Reformation fervor that threatens the world. This time her ideal teaches no higher than economic self-salvation.

Czecho-Slovakia is like a young man at his majority, reveling in a new-found freedom, self-centered, self-contained and contentious.

Austria is the new "sick man of Europe." Its joy and festivity are turned to mourning and darkness as its necessary dependencies, the young, now sister, states are flattered and cajoled into unnatural alliances.

Italy appears like a man in armor whose movements are constrained. There is outward reform in the mercenary habits of her people, who dare not demand a tip but most diligently cultivate one, and in a cleanliness which confines itself to the front doorstep.

Such is the present moral and spiritual debacle of Europe twenty years after the great catastrophe of war. It is vain to dream that dictatorship, regimentation, ingrowing nationalism, increased armies and navies can cure a sickness so desperate. Only the new blood of spiritual forces, moral ideals, new concepts of freedom and obligation can save her.

Will these appear? The world awaits in silence the answer.

Rococo

Dare an ignorant layman express himself upon architecture? Perhaps he should if he can voice the impression which a given mode produces in him. If any style tells tales of the minds and souls of those who conceived it perhaps that style is rococo, of extravagant baroque, so common in Europe. Its exaggerated lines indicate a contact with Chinese civilization, superficial, not half-digested and quite misunderstood. It attempts to hide its real motives with the artificial and is ashamed of its inner sentiments.

It possesses a contemptible view of life and of human nature, believing in dumb show rather than honesty. Its efforts at concealment are the sources of its self-revealment, though it is too egotistical to know this. It belongs to the age of power and peruke, of newly acquired satins and silks without the knowledge of how to wear them. The literary expression, social life and religion of the time were all of a piece with it.

The revolution that broke up this artificiality was the demand for an inner sincerity, though the immediate effect was the flight to another pose and copy, "the Empire," a new insincerity of the old in the name of liberty.

The revolution was long overdue and its issue was democracy. But it did not go deep enough. It was content to tarry with the husks of the promised political freedom. Man cannot live by political democracy alone. He may possess the ballot and still be bound by economic fear, bulldozed by social convention, or religious superstition. So long as he lingers in an incomplete freedom he cannot be creative. Freedom can come only when he is free to think. He must look God in the face and follow his own convictions.

Any attempt at repression here takes a costly toll from society, making even political freedom a deadly mockery. So long as there is denial of free speech, free press, free expression of religious or political opinion the finer forces of the spirit cannot find literary, artistic or religious expression. Only complete surrender to the inner voices of truth can set us free.

Without this, society wears a mask, it is untrue to itself and to nature, it can only express itself in rococo. The decision of today is perhaps between freedom and rococo.

The Man on Horseback

One of the astounding facts is the obliviousness of men to the forces that make civilization. They worship at the shrine of the destroyer.

Everywhere in our Western world are monuments raised to the man on horseback. From the frock-coated monstrosity of our city thoroughfares to "the tallest equestrian statue in the world" where the elder Wilhelm overtowers the Rhine at Coblenz it is ever the same. (Our most *obvious* contribution to China is perhaps the dinner-coated figure of Sun Yat Sen backed up against the Great Wall in conspicuous obscurity.)

Gutenberg's discovery of the art of printing did not "establish a nation" by committing it to narrow provincialisms, nationalisms and race antagonisms as did Wilhelm. However, he revolutionized the mental habits of the world and laid at the feet of the common man the lore of the ages.

For this better part Gutenberg achieves a modest effigy in an inconspicuous street of Mayence. Yet in his influence he was undoubtedly more colossal than Drusus, Charlemagne, or any other dweller in that fair city past or future.

An even greater neglect surrounds the one-time residence of Koburger at Nuremberg, while what purports to be Philip Melancthon's "first German high school" is but casually noticed.

In the attractive hall of the University of Heidelberg we hear of the famous Thilly who desecrated her library and shipped it to the Vatican where it still remains. Yet in this room was heard anon the voice of a prophet and seer, by far its chiefest ornament. The expatiating guide did not even know the name of Hegel who once taught here.

Cologne

The absence of great architecture in any age may be taken as an indication that man is building to the lower impulses of physical comfort, or industrial organization, the so-called "practical interests." Even a totem pole can excel it.

When one compares Cologne's glorious cathedral with the modern homes, stores and factories of her people the truth drives home with startling force. If someone say this is appropriate that the house of God should excel as the ways of God are higher than those of man, it may be observed that only as man builds for God can he build also for himself.

Soulless creatures build beautifully because they build up to capacity. Man builds beautifully only as he builds to a higher capacity of the soul. The Chambered Nautilus builds a house of surpassing loveliness because true to his physical nature. The work of man must express his soul or his work is naught.

As one threads the forest of pillars at Cologne and gazes on the windows below or allows his eye to wander upward to the beauty of the clerestory everywhere is evident the expression of the spiritual. The men who did this work realized their rightful place in the greatness of things. Grossness on their part would have inevitably modified their skill.

Where else but in the absence of the spiritual can we seek the causes for the present mediocrity of European architecture? One can almost always place the date of a building by the presence or absence of architectural sincerity. Yet the modern builder has before him the best of models.

Copies however bear the marks of spiritual blindness in the copyist, for having eyes he sees not. His own spiritual poverty prevents him from catching the master conception.

The vast minster of Cologne stands a solemn and solitary witness against the surrounding cheapness testifying through the ages to the fact that man builds nobly only for the spirit.

CURRENT THOUGHT

"RETURN TO DUALISM"

THE "Return to Dualism" which Professor Hugh Miller advocates, in his article in the *Journal of Philosophy* for November 22, 1934, is not a return to any philosophical convention. According to his analysis, the simultaneous development of macroscopic space-time relativity and microscopic quantum physics has finally brought to realization "the Greek search for the eternal."

The Greeks themselves, he says, were able to conceive their world as a closed, immutable system only by abstracting it more or less crudely from time and change. Today, however, in physics, time has been integrated with space, and in their synthesis a physical absolute has been attained. But this also has been possible only through an abstraction from time as a system of specifics whose parts cannot be thought of as interchangeable. Similarly, the concept of the quantum brings to fruition the effort to conceive the microscopic in universal geometrical terms. Traditional "atomism has never been more than a device accommodating perception to geometrical thought. . . . The quantum permits the application of mathematical physics at a point." But, as in the case of space-time, this absolute is achieved only by abstracting universal structure from specific character. "The cosmic geometry is fixed, the quantum moves."

Professor Miller's analysis of the physicist's search for the universal is preliminary to his main interest. What he is concerned with most is the contrasting factor of specificity which this culmination in physics brings to light. This concept, he believes, is characteristic of the modern as distinct from the Greek world, its scientific, philosophical, and cultural realization being the urgent demand of our time. For the idea of specific as distinct from universal character is the root of the characteristically modern concepts of duration, history, and life. "In its predeliction for the eternal and static our science is still Greek. Yet our culture is not Greek. Its shibboleth is progress, its religion is creation; and this religious vision of nature as the drama of a universal life will yet be made articulate in scientific reconstruction. That science will be a discourse on the specificity of nature, in distinction from its immutable geometrical form."

Many philosophers have distinguished in one way or another the specific from the universal, but usually at the expense of one or the other. Apart from the intrinsic virtue of Professor Miller's dualism is his recognition of the importance of each. As a result he is able to oppose on the one hand such denials of abstract reason as that of Bergson, and on the other hand the attempt of the vital sciences to simulate in imitation of physics a universality incompatible with their inherent specificity. Neither the categories of geometry nor those of biology are false to nature. They become so only when they are confused. Thus "the greatness of Descartes lay in his clear discernment of geometrical structure, or extension, as at once autonomous and abstract." The fulfilment of this insight in the biological field can come only when it too recognizes the autonomous character of specific structure, and abrogates the confused effort of modern philosophers and others to force geometrical conceptions onto the specific, and to restore to the universal or geometrical sciences the very qualities which Descartes had carefully thrown out. Hence Professor Miller's urgent advocacy of a dualism whereby the universal and specific sciences would be developed autonomously, as systems completely distinct from one another in principle and method, though united in a common world.

Before accepting such a thorough-going functional dualism, it will be well to consider some objections. Without questioning the importance of distinguishing the universal from the specific, we would urge that such a distinction makes the consideration of their functional interdependence the more important. An unmitigated dualism is as confusing as an indiscriminate monism. As Professor Miller himself sees, the importance of his distinction rests on the very fact that in making the distinction a relationship is revealed whose hidden presence is liable to generate confusion. To this he might answer that though in a sense distinction does reveal relation, in the case in point it is a relation of functional separation.

This we would deny. It is quite as important for the various sciences to draw lines of connection as to draw lines of separation. Were Professor Miller a monist, he might attempt to reduce one aspect of experience to the other, or, more simply still, to deny its reality. But how can he, recognizing the reality of both aspects, deny the positive relevance of one to the other? To do so would be to deny the relevance of gravitation to life. It is not merely at crucial points that the specific and the universals are related, but in every moment of experience. To realize at each moment the convergence of these two abstractions from a common world, and to realize the modification which each exerts upon the other, is not only as important as, but is essentially correlative to, the clear perception of their distinction.

It is no rigid monism that we would substitute for Professor Miller's dualism, but an interactionism which his theory seems to reject. Perhaps this is only seeming, for at one point he states as his own problem the one which we have raised: "To know in detail how a moving reality maintains its fixed structure would be to know all."

H. Jeffery Smith.

NOTES AND DISCUSSIONS

THE MEETINGS OF THE PACIFIC DIVISION OF THE AMERICAN PHILOSOPHICAL ASSOCIATION

THAT philosophers are apt to have suppressed views on almost every subject was shown to be the case, at least with regard to social questions, at the eleventh annual meetings of the Pacific Division of the American Philosophical Association, held at the University of California at Berkeley, December 27-29. For, though the papers varied widely in subject, a number of the members followed Professor J. H. Tufts' suggestion of making social philosophy the informal keynote of the conference.

In keeping with his lifelong interests, Professor Tufts in his presidential address dealt with "The Institution as Agency for Stability and Readjustment in Ethics." His paper placed considerable trust in institutions, provided they function progressively as well as conservatively, and in relation to ends as well as to means. Using the present social and economic system as an example, Professor H. C. Brown discussed "The Ethical Evaluation of a Social Order." He held that it is not enough to consider a system from the point of view of its immediate economic efficiency, but also with regard to the kind of ethic which it generates. For an ethic is not only an end, but in turn affects the system that produces it. Thus, even though an economic system be narrowly efficient, it will if it produces a bad ethic in the long run destroy itself.

Analyzing "The American Ethos in the Contemporary Scene," Professor Edward O. Sisson found that in spite of the danger of fascist regimentation, democracy, more deeply grounded not only in the American tradition but in human nature also, is still a possibility. Professor E. E. Ericksen read a paper entitled "Dewey's Concept of the Individual Socially Evaluated," in which he showed that individuality arises from social participation rather than from social isolation. Less directly concerned with social questions was Professor Robert E. Fitch's treatment of "Growth as the Good—An Instrumental View," in which growth was defined in terms of change in which past values are preserved through adjustment to new interests and conditions.

Believing that the social scientist should function as an adviser to governments, Professor F. J. Teggart sketched two alternative views of social life which arose in the Eighteenth Century, the one an idealized interpretation of "Nature," the other a descriptive account of specific historical fact. These views he considered incompatible. His conclusion, however, was that historical description must be accepted as the necessary material of social-scientific construction. Discussing "Physics, Biology, and Epistemology," Professor Hugh Miller held that modern theory had largely ignored the specific character of biological experience by attempting to treat it as continuous with physics. What genuine biology there is exists in isolated fragments, and it remains for the philosopher to reveal its cosmic scope.

Two strictly historical papers were read, one by Professor H. G. Townsend who, in presenting "Some Sources and Early Meanings of American Pragmatism," shed interesting light on Peirce's early thought, particularly in relation to his later work. Professor B. A. G. Fuller's "Thoughts About Schopenhauer" dealt with the implications of his attempt to view the universe as an ego "writ large," dwelling particularly upon his pessimism. Professor S. C. Pepper's "Root Metaphor Theory of Metaphysics" explained metaphysical systems as varying applications and extensions of elementary experiences. He held that one cannot rightly accept any metaphor as adequate for the whole, but that neither is it satisfactory to accept an electric combination.

The Open Forum on "Functional Realism," suggested by Professor John Elof Boodin's presidential address of the previous year involved an attack upon "the given." Professor Donald A. Piatt attacked Professor Donald C. Williams' theory of the given on the ground that his attempt to maintain at once its private innocence and its public appearance was contradictory. Professor Paul Arthur Schilpp attacked functional realism from a Kantian point of view, holding that it rested on a confusion of epistemological and metaphysical considerations. In concluding the discussion, Professor Boodin questioned the meaningfulness of the given, and summarized his view that experience and reality are overlapping and not mutually exclusive terms.

In the business session Professor E. A. Robinson made a careful report for the Committee on the Employment of Teachers of Philosophy. After serving faithfully for a number of years as secretary Professor H. G. Townsend retired from the office. Professor S. C. Pepper was elected the new President. Thanks were given to our host, the University of California at Berkeley. Their International House, where the meetings were held, provided easy chairs and an informal atmosphere congenial to philosophical discussion. Altogether, the meetings were a considerable success, revealing the important fact that though philosophers are loquacious they yet suffer from suppressed ideas.

H. J. S.

OUR FOREIGN LETTER

AN AMERICAN PHILOSOPHER IN NANKING

THE "intellectual" in China today is not interested in philosophy, but the man of affairs is. It is he who reaches out for meanings by which and for which to live." These comments, recently spoken in animated discussion by a brilliant Chinese professor of economics and adviser to the Ministry of Industries of the Government, accurately suggest present tendencies in China.

Many professors and students in China are still looking for social salvation through the discoveries and leadings of science, declaring, in substance, that "China had enough philosophy in ages past. Now she needs science and action." On the other hand, the influence of important men of action, like that of Generalissimo Chiang Kai Shek, is in the opposite direction.

There is much intellectual and spiritual confusion here. China's ancient philosophy has virtually been shaken to pieces, and her people need a new, or at least a renewed, *Anschauung* for a new epoch. We Christians believe that it should be a Christian philosophy, but Western influences have not always inspired this point of view. In recent years some noted Western scholars have visited this country, leaving behind them a naturalistic philosophy non-religious or anti-religious in character.

This year, however, another type of scholar, a Personalist, is in China. I refer to Professor Ralph Tyler Flewelling, Director of the School of Philosophy of the University of Southern California—a Christian, and a worthy intellectual descendant of Borden Parker Bowne. Visiting Professor for the current year in the College of Chinese Studies, at Peiping, Professor Flewelling accepted last November, 1934, an invitation to visit our new national capital, Nanking, and, incidentally, in the short period of one week, gave sixteen addresses and attended ten luncheons and dinners in his honor, in addition to granting numerous personal interviews.

One hundred members and friends of the American University Club of the city, mostly Chinese, called together by Dr. Hsu Mo, Vice-Minister of Foreign Affairs of the National Government, welcomed Professor Flewelling, and enjoyed his address on "The New Frontier of Civilization." Later, the Vice-Minister gave a luncheon in his honor at the national capitol, attended by some of the educational leaders in Nanking, where much interest was shown in the international fellowships and professorships which the University of Southern California is planning for post graduate study in philosophy and comparative civilizations. Such projects, it is patent, will lead to larger mutual interchange between the cultural systems of America and the Orient.

Over two hundred professors and students of the National Central University in Nanking came to hear Dr. Flewelling on "The Creative Idea in Western Society," and the following day the Chancellor and Faculty continued the discussion at a luncheon. At Nanking (Christian) University he delivered a series of lectures to increasing audiences of faculty and students of this university and those of Ginling Women's College, together with the leaders of the Christian community, on such subjects as "The Scientific Revolution and the New Day," and "The Creative Person in a Personal World." Still another series was delivered in convocation at the Nanking Union Theological Seminary.

Close observers said that his lectures marked "the turn of the tide" in religious and philosophical thought at Nanking University. Christian leaders found them heart-warming with reassurance for their faith and for the expansion of Christian thought and life in China. And while Christians were interested because he clarified the foundations of thought for faith, non-Christians found his lectures of interest because he is a philosopher and speaks with popular appeal and personal conviction, as well as ripe scholarship. The daily Chinese press gave favorable notice of the address, and Dr. Flewelling has earnest invitations to return to Nanking for other lectures before returning to America.

The "intellectual," even when trained by the church, is apt to be indifferent to religion. At the same time, while ten years ago, he or his predecessors might have been opposed to the church because of its foreign origin, or because he was inclined to think "religion is an opiate of the people," now he is beginning to be spiritually hungry. Like everyone else he must have some sort of philosophy, some guiding creed for life, some faith which will give meaning to existence. But in the main he does not find in the church as it is the food which can satisfy his appetite, nor yet again has he found elsewhere a satisfactory philosophy of life.

Professor Flewelling had a surprisingly good hearing in Nanking—surprisingly, because lectures on philosophy are supposed to be dry; and these are days of tremendous pressure for practical things.

Nanking, China. Ralph A. Ward.

ALONG THE BOOKSHELF

Peirce and Pragmatism

THE COLLECTED PAPERS OF CHARLES SANDERS PEIRCE, edited by *Charles Hartshorne* and *Paul Weiss.* Vol. V: Pragmatism and Pragmaticism. Harvard University Press. Pp. xii, 455. $5.00.

Peirce has so long been the mystery man of Pragmatism and published so little in his lifetime about the movement to which he gave its name, that there has been considerable speculation as to what he really thought about it. Hence the present volume will probably mark the culmination of the interest in him, unless his editors set themselves to achieve a *succes de scandale* by their selections from his letters. The present installment is composed largely of unpublished material, but contains also important Papers which have long been practically inaccessible to students, such as his contributions to the *Popular Science Monthly* (1877-1878) on *The Fixation of Beliefs* and *How to Make Our Ideas Clear* and his reactions to the first boom in Pragmatism, the two Papers which came out in the *Monist* in 1905. Three early articles (1868) from the *Journal of Speculative Philosophy* and some minor contributions to Baldwin's *Dictionary of Philosophy* are also reprinted.

The hitherto unpublished work includes the (seven) famous Lectures on Pragmatism delivered at Harvard in 1903, which James described as "flashes of brilliant light relieved against Cimmerian darkness," and a number of unsystematic and unfinished fragments, mostly dating from 1905-6, and partly in dialogue form. Of these the most important would seem to be Peirce's sketch (pp. 6-9) of the *milieu* in which pragmatic ideas germinated, the group of young men at Harvard who called themselves the Metaphysical Club and discussed philosophic topics in each other's rooms and included not only Peirce and James but Mr. Justice Holmes, Chauncey Wright, Joseph Warner, and Nicholas Green. This account bids fair to settle the vexed question of the genesis of Pragmatism; for under these conditions the whole credit for its origination can hardly be assigned to any single member, and James's generosity in attributing so much to Peirce appears in its true light. *A Survey of Pragmaticism*, the *Consequences of Critical Common-Sensism,* and the fragment on *Truth* are also valuable at least as giving Peirce's reactions to the efforts of the early pragmatists, and the Paper on *Methods of Attaining Truth* (1898) contains what is probably the most substantial and intelligible contribution to scientific method which Peirce made after formulating his famous Rule for making ideas clear.

What now, in the light of all this new material, is one to make of Peirce? Was he a great original thinker, or was he so reputed only on account of the great difficulty of seeing through his "Cimmerian" obscurity? I do not feel that this question can be decisively settled even yet. Peirce continues to remain a problem for the historian of philosophy and for the psychologist who is determined to trace philosophies to their roots in idiosyncrasy. Nevertheless some points are beginning to stand out amid the general darkness.

The first one that struck me was how accurately James had sized up the situation. His description of Peirce's Lectures on Pragmatism is just right. They now stand revealed to us as in no wise an exposition of the new philosophy, but as only very remotely connected with Pragmatism, except in Peirce's mind. For, nearly throughout, Peirce is only talking, anything but lucidly, about the ideas which happened to occupy his own mind at the time, about things like "categories," "systems of metaphysics," "abduction" and "cotary propositions." No wonder no one could derive from him any idea of what Pragmatism meant! Thus James's account of these lectures has been fully vindicated, and Peirce's querulous attitude towards James seems decidedly ungracious and ungrateful. He cannot indeed deny that James had correctly formulated his meaning (pp. 276, 318, 343, 354); yet he cannot refrain from complaining that his exegesis was "not very deep" (p. 9), and pushed his (Peirce's) method to "such extremes as must tend to give us pause" (p. 2). The truth was that Peirce obstinately refused to develop the logical consequences of the pragmatic principle and to act as a leader of the pragmatists. He seems to have been one of those highly individualistic philosophers who are incapable of leading, and to whom followers are merely an embarrassment.

The second point which impresses me is that, compared with James, the present writer fares quite well at Peirce's hands. At first, indeed, he seems to incline even to excessive laudation (pp. 276, 318, 336); but afterwards he realizes that here too "the principle of Peirce" is being developed and put to work in a way he had not dreamed of. So his tone changes. He professes himself unable to understand (pp. 343, 371, 375)—even to the extent of giving false references (p. 390) as well as false interpretations of doctrines which are really identical with his own, like the recognition of values in logic (cf. p. 70 with p. 371), and of the satisfactoriness of truth (cf. with p. 392 the admissions, pp. 397, 406, 393, that to *disappoint* prediction is a mark of falsity, that *dissatisfaction* with existing knowledge is a stimulus to inductive method, and that "as soon as a firm belief is reached we are entirely *satisfied*").

However, James and Schiller are the only pragmatists Peirce even deigns to controvert. Dewey gets only one cursory and contemptuous mention; Mach "goes altogether too far;" Poincare is travestied (pp. 344, 417), and the rest, from Alfred Sidgwick downwards, are not even mentioned!

The truth is that Peirce was not a good expositor either of his own doctrines or of those of others. He seems to have been constitutionally incapable alike of confuting the doctrines he controverts or of establishing his own. He talks, repeatedly, of two or three scientific "proofs" of Pragmatism, and then excuses himself from giving them, on the ground that they are as abstruse "as any but the very most difficult of mathematical theorems" (p. 320). One cannot but suspect that this is mere braggadocio!

At any rate, fourthly, I defy any one to discover from Peirce's lengthy and tortuous lucubrations what, in his opinion, either Pragmatism was, or, for the matter of that, Pragmaticism. The nearest he ever gets to a definition of the latter is in his first *Monist* article, where he states that it cannot be defined without establishing first his "synechism" and "common-sensism," and that its "bare definition" would convey little without previous acceptance of certain "preliminary propositions" which "might all be included under the vague maxim, 'Dismiss make-believes'" (p. 278). Clearly Pragmaticism was "safer from kidnapers" (p. 277) not only by reason of its ugliness, but also because it was left so vague!

As for "pragmatism," when Peirce tries to get beyond his original rule of method and "to put pragmatism as I understand it into the form of a philosophical theorem," he does not succeed any better than this: "Pragmatism is the principle that every theoretical judgment expressible in a sentence in the indicative mood is a confused form of thought whose only meaning, if it has any, lies in its tendency to enforce a corresponding practical maxim expressible as a conditional sentence having its apodosis in the imperative mood" (p. 15). It might be possible to take "the rational purport of a word or other expression lies exclusively in its conceivable bearing upon the conduct of life" (p. 273) as a definition, if only Peirce had anywhere given any reason for *limiting* pragmatism to the *rational* purport of the *conceivable* bearing, or had himself confined his pragmatic arguments to these. In short, he shows himself both unwilling and unable to advance beyond his own original rule of method, the "principle of Peirce."

This position, however, may easily be shown to be quite untenable. His principle was ostensibly a rule for determining *meaning* and *eliminating* the unmeaning. But it was impossible to overlook its bearing on all attempts to determine *truth*. For so soon as it is recognized that meaningless propositions occur and are frequent, it has to be recognized that the facile convention of logic (*and* mathematics) that propositions are either true or false (in either case *absolutely*) is a *fiction*. Thus the unmeaning becomes a third alternative to the true and the false, and vitiates all arguments based on their dichotomy.

Moreover, if it is recognized that propositions are in actual thinking *meant to be used*, and are used by applying them to particular cases, to solve *problems* and to dispose of *doubts* (as Peirce handsomely recognizes), it at once appears that the meaning in use may depart from the abstract (verbal) meaning to an indefinite extent. This will entail a further discrepancy between the "truth" of a "proposition" and of a judgment, and will render it quite inexact and improper to continue to use the word without regard to this systematic ambiguity.

Logic, therefore, will have to *choose* between trying to deal with "propositions" and with judgments. To conserve its traditional doctrines it must cling to propositions; but, if it does, it parts company with all the operations of scientific knowing, and becomes an arbitrary word-game. If, however, it makes up its mind to consider judgments, and the actual procedure of knowing in concrete cases, it *must* take into account *all* the conditions of each case. That is, the whole context and purpose of each inquiry, and the personality of each inquirer, become logically relevant, and all the familiar abstractions of traditional logic go by the board. The logical revolution is immense.

Furthermore, so soon as logic is permitted to deal with concrete cases, it becomes clear that a formula ("proposition") is by no means simply true or false. It is more or less *adequate,* and has to be made adaptable to scientific purposes. Hence its meaning has to become *flexible* and capable of *growth.* Scientific truths, therefore, cease to be absolute: their value has become a matter of *degree.* They become relative to the occasion which led to their discovery, to the purposes of the inquiry, to the experiments and the evidence which established them, and to their various applications and further uses. In their various uses they become liable to restatement and correction to all infinity. To interpret scientific truth, therefore, as absolute becomes nonsensical.

The allegation of a "truth," therefore, at once raises in a scientific mind the questions—*why true? how true? how much truer than something else?*—and a desire to *improve* upon that truth and to depress it into a *relative* "error." The formal truth-claim of propositions, therefore, ceases to be mistaken for absolute truth and to arrest the progress of scientific thought; every truth-claim is regarded as demanding verification and challenging correction.

This whole development, however, was repugnant to Peirce. He was in no wise minded to become such a revolutionary in logic. The discovery of his principle in no wise undermined his devotion to the logical tradition. Beyond insisting that certain "concepts" must have meaning and that beliefs must be related to action, he refused to budge.

He continues, therefore, to deal in "propositions," "symbols," "signs," "concept," etc., and to conceive them as ends in themselves rather than as instruments of knowing. He continues to deal in words and to labor at the formal classification of "propositions." He continues to believe in "indubitable" propositions, which are to be "ultimate premisses" (p. 362). He continues to be content with the correspondence theory of truth. He continues to believe in "The Truth, which is the universe of universes" and is not dissevered into an indefinite plurality of truths by the purposes of the various sciences and interests (p. 357). This is why he continues to believe in absolute truth. With an incredibly naive confusion of psychology and logic, of undoubted with indubitable, he tells us (p. 278) "that which you do not at all doubt, you must and do regard as infallible absolute truth." He does not, apparently, anticipate the retort: "Not at all; only I have not yet had occasion to examine *all* my beliefs. If I had, I should doubtless be able to doubt and to improve them all. And I see no reason for believing that what I cannot help believing is on that account more likely to be true. It may only indicate a psychological disability in me. And I am much more disposed to accord the title of truth to what helps me in believing than to what I cannot help believing. For a truth that satisfies is much more attractive than one that tries merely to coerce."

In conclusion let me state that I have dwelt at such length on the limitations and defects of Peirce's work, not because I fail to recognize that, under Providence and with William James as his interpreter, it gave a great impetus to philosophic progress, but because I fear that there may be attempts to represent it as the only original and authentic pragmatism, and that students of the subject may get lost in its mazes. As against such attempts it is well to show that though Peirce formulated the principle from which modern pragmatism *started,* he did not pursue it into its applications, and that the bulk of his work remains on a pre-pragmatic level.

F. C. S. Schiller.

Preformation, Emergence, and Creation

GOD AND CREATION: THREE INTERPRETATIONS OF THE UNIVERSE. By *John Elof Boodin.* The Macmillan Company, New York. 1934. Pp. 519. $3.00.

GOD AND CREATION: GOD, A COSMIC PHILOSOPHY OF RELIGION. By *John Elof Boodin.* The Macmillan Company, New York. 1934. Pp. 240. $2.00.

God and Creation is the general title of Professor John Elof Boodin's independent but companion volumes, *Three Interpretations of the Universe* and *God, A Cosmic Philosophy of Religion.* In them is systematically developed a teleological cosmology culminating in a creative, personal God.

In recent years the market has been flooded with artificial cosmologies founded on recent science. But on the whole they have not submitted to the discipline of philosophical and cultural tradition, and will doubtless vanish as the particular conceptions on which they are founded submit to inevitable change. The importance of Professor Boodin's *Three Interpretations of The Universe* lies in the fact that he here presents a philosophical integration of the perspectives of modern science and historical tradition.

Having for many years fought for the reality of time, Professor Boodin sees the problem of cosmology in terms of process or evolution. To the maze of traditional and contemporary systems he applies a profoundly simple analysis of evolution into preformation, emergence, and creation. Thus through the conception of preformation or evolution as predetermined unfoldment, he is able, for example, to demonstrate the logical connection between mechanistic evolution and certain stoic conceptions of cosmology. Similarly, the principle of emergence, "which means a passage from the lower to the higher without formal guidance," is revealed as a fundamental concept in Lucretius, Hegel and Marx, as well as in recent physics, biology, and psychology. The author also convincingly shows that Lloyd Morgan is not essentially an emergentist, and identifies emergence as a self-conscious theory with Harvey's epigenesis. Such far-reaching historical and scientific analyses are probably the best solution to the verbal quarrels which engage philosophy today.

By creation is meant "emergence through guidance." This view is found preeminently in Plato and in Hebrew thought. For there creation as found in human experience is made the first principle of cosmology through the idea of God as a forming artist. This kind of creation stands in contrast to the later theological conception of "creation out of nothing," which is not experiential but magical. The plausibility of the theory of cosmic process as creation lies in the fact that it incorporates and thereby makes intelligible both alternatives, whereas "neither emergence nor preformation can be true by itself, and both cannot be true since each affirms what the other denies." The alternative view of creation does, however, offer a tenable cosmology. True, it is only probable, but it is held to be the only cosmology which takes the evidence of experience seriously and at the same time offers an intelligible first principle.

Three Interpretations of the Universe abounds with fresh interpretations of science and philosophy. An important reinterpretation of Aristotle's principle of individuation is one of many. Students of the history of philosophy as well as philosophers of modern science cannot afford to overlook this book.

God, A Cosmic Philosophy of Religion presents Professor Boodin's view of creation succinctly and in a style attractive to the layman without loss of scholarly integrity. To persons seriously interested in religion this work offers a relief on the one hand from the easy disparagement of faith in science made with the curious hope of thereby promoting faith in religion, and on the other hand from the popular theologies of sugar-coated science. Here is a serious theology, and one which may even help the pragmatic escapists into religious sociology to see the inescapable necessity of cosmology if religion is not to degenerate into mere sentiment.

The appeal of the author's theory rests on the fact that it is at once a realism and an idealism, without disguise. The concept of levels, graded in terms of value, relieves one of the suspicion that one has of most contemporary religious philosophies that they are liable to slip from idealism to materialism, or from dualism to monism the moment that argument ceases and one turns to pray or take a bath. Nor is there any doubt as to the natural reality of Boodin's God. He is not Santa Claus. For the author has written "in natural piety," with a profound trust in the reality of common experience. God is no substitute for matter, but is the natural counterpart of the principle in conscious life which gives wholeness to experience. This whole-control is possible only because the levels of experience are not mutually exclusive, fixed substances, but are energy fields which overlap and functionally interact. Thus facts and values, matter and mind, part and whole are united in a creative up-building which has its source and pattern in a perfect but limited God. Of particular importance to this view is its generalization of the scientific concepts of energy fields culminating in the "field of divinity," and its treatment of the relation of mind and matter in regard to the law of entropy.

In previous works by Professor Boodin some have felt the literary passages to be in conflict with the more strictly logical. In these two works, however, poetry and logic have been more finely integrated, and only those who think them mutually exclusive will take exception to the work of one who finds in Plato a model not only for his cosmology but for his expository method. Some brief passages will serve to illustrate both thought and style:

> It is a momentous venture to attempt to frame an hypothesis of the universe. But if we reflect on the meaning of life, we are obliged to make such an effort. The only way we can escape such responsibility is to be guilty of man's great refusal—the refusal to think. (54)
>
> We cannot hope to comprehend God, but without God we cannot hope to comprehend anything else. (24)
>
> It is only by viewing the universe as the field of creative spirit that we can understand the cooperation of nature towards the development of spirit. (129)
>
> As we speak of life being geotropic—orienting itself to gravity—and heliotropic—orienting itself to light—so we should speak of it as theotropic—orienting itself to the divine. (28)
>
> Terrible is the holiness of God, the love and beauty of God. You can be sure that the stream of divinity runs pure. It destroys sloth, sordidness and filth, but it is tender as the sun in spring to stimulate to life, creativeness and beauty. (35)

H. Jeffery Smith.

The Development of Aristotle

ARISTOTLE: FUNDAMENTALS OF THE HISTORY OF HIS DEVELOPMENT. By *Werner Jaeger*. Translated, with the author's corrections and additions, by *Richard Robinson*. Clarendon Press, Oxford. 1934. Pp. iv, 410. $6.00.

ARISTOTLE'S CONCEPTION OF THE SOUL. By *E. E. Spicer*. University of London Press, London. 1934. Pp. xi, 236. 8s. 6d. net.

When Professor Werner Jaeger (now of Berlin) set himself to study the genesis of Aristotle's philosophy, it was at once widely recognized that he was making important and valuable contributions to the genetic psychology which is so indispensable a presupposition to the understanding of any thinker. For, as I have ventured to point out,[1] a philosophy is not primarily a "logical structure" at all, but a "psychological process extending over a lifetime," nor are most philosophers "at all anxious to reveal the road by which they reached their conclusions." It is therefore quite an achievement of Professor Jaeger's to have made it so probable that Aristotle's psychological process led him from the enthusiastic acceptance of Platonic metaphysics in the early dialogues (which he subsequently referred to as "exoteric"), the *Protrepticus* (preserved to us by extracts in *Iamblichus*), the *Eudemus*, and the *Philosophy*, to the completely sober scientific positivism exhibited in the latest parts of the *Metaphysics*, the *Politics* and the writings on *Natural History*. This development is advocated by professor Jaeger with great ingenuity and learning. It is intrinsically probable, and seems likely to be generally accepted by scholars.

But for this very reason it may be well to add a few cautious observations. In the first place, it is to be hoped that Professor Jaeger will succeed in extending his theory to Aristotle's *logical* writings. For these as-surely contain the most original part of Aristotle's work and we should give much to know how he came to make his great discovery of the syllogism. Greek ingenuity has equipped the discovery of the Pythagorean theorem with a picturesque tale of the sacrifice of a hecatomb to Apollo, and that of specific gravity with one of a naked sage crying out *Heureka!* in the streets of Syracuse; but neither Pythagoras nor Archimedes was as epoch-making as Aristotle, and it is a great pity and a reflection on the historians of philosophy that they have left him unadorned by anecdote.

---

[1] *Must Philosophers Disagree?* pp. 11, 12.

Secondly, I cannot but regret that Professor Jaeger, by dating Plato's *Parmenides before* Aristotle's arrival in Athens (p. 16), should render it chronologically impossible to identify him with the "Aristotle" who was "the youngest of those present" at that dialogue, and "therefore the *least* likely" to impede the dialectics of Parmenides by raising objections. For would not this theory provide the missing link between the two parts of the *Parmenides,* and would it not be a delicious piece of Platonic satire if the actual Aristotle, *although* the youngest of Plato's pupils, had in point of fact raised objections which put the Ideal Theory very much on the defensive? It is pretty clear that the aim of the *Parmenides* was to quell an incipient revolt against the Ideal Theory which had broken out in the Academy, and that the arguments which are urged against it in the first part of the *Parmenides* are largely identical with those put (not so well and long afterwards) by Aristotle: are we not entitled to suspect that they were in fact Aristotle's and that the purpose of the dialogue was first to show him that his master was fully aware of them, and then that he could plunge into depths of metaphysics into which even his cleverest critic could not follow him? The fact that in his earliest dialogues, the *Eudemus,* the *Protrepticus* and the *Philosophy,* Aristotle appears as a devout Platonist is no refutation of this theory. For if Plato was as great a man as he seems to have been, he would be psychologist enough to understand that it is precisely the *best* minds that go through a phase of revolt against what they are taught, and that the way to treat them is not by dogmatic excommunication but by sympathy. If so, Plato may have recaptured Aristotle's allegiance by the *Parmenides:* his subsequent alienation from Platonism was not Plato's fault, but that of the School which twice passed over Aristotle's claim to its headship, and could prefer a Speusippus and a Xenocrates to an Aristotle.

Thirdly, Professor Jaeger's theory of a Platonic phase still traceable in Aristotle's writings has been to a large extent anticipated by the late Professor Thomas Case in his *Encyclopaedia Britannica* article on "Aristotle," which is particularly acute in its treatment of the problems presented by the *Eudemian Ethics* and the *Metaphysics.* Professor Jaeger does not seem to know this article; but he would find in it strong reinforcement of his position.

The final problem of the form of Aristotle's writings, however, resolves itself into the question of Aristotle's method of working. Most of his treatises are plainly left in an unfinished state, and contain strata of different ages, duplications, digressions, parentheses, and often degenerate into mere memoranda. This state of affairs is explicable if we realize that Aristotle had essentially the soul of a professor. So he was always rewriting his lectures; but he frequently failed to complete his task, and left the old standing by the side of the new. Also he did not always destroy his superseded manuscripts, and not infrequently failed to finish his course. Morever, he lived before the invention of the invaluable expedient which has so greatly alleviated professorial self-expression, the *foot-note.* Hence, whenever he thought of something which would nowadays go into a footnote, he had to put it into his text, where it produced dislocation of the logical order and grave suspicions of interpolations, spuriousness and corruption in the faithful commentator's mind! Lastly, it is clear that our present "Aristotle" has been *edited;* but he was not edited *enough,* presumably because discipular piety shrank from too severe and radical redaction.

It remains to be said that Professor Robinson's translation reads like English and is adequate, so far as I have tested it. He has succeeded in compressing his author from 438 pages to 410; but this only shows, perhaps, that English is not quite so long-winded a language as German.

Aristotle's Conception of the Soul, a handsome volume by E. E. Spicer, would appear to be a thesis written for the degree of M.A. in the University of London, and as such may be regarded as a meritorious piece of work. It is composed mainly of translations (from the Oxford Translation of Aristotle), extracts, abstracts, references, quotations from the authorities who have written on the subject, a bibliography and an elaborate index. As Mr. Spicer hardly ever ventures on an opinion of his own, the book may be presumed to be safe, and for those who wish to study Aristotle in English it may conceivably be useful. But the University of London is the body most deserving of congratulation; it must be rejoicing in a plethora of funds to be devoted to the publication of "researches" of this kind.

F. C. S. S.

Biographical Studies

ISAAC NEWTON. By *Louis Trenchard More.* Charles Scribner's Sons, New York. 1934. Pp. 668. $4.50.

THE LIFE AND FRIENDSHIPS OF DEAN SWIFT. By *Stephen Gwynn.* Henry Holt and Company, New York. 1933. Pp. 362. $3.75.

CARLYLE. By *Louis Cazamian.* American Edition. Translated by *E. K. Brown.* The Macmillan Company, New York. 1932. $2.75.

Due to the conspiracy of his friends and biographers, who have been inspired to elevate the man to a saintly pedestal of moral inerrancy and theological orthodoxy, even at the price of historical dishonesty, Newton has remained in England something of a myth. There has long been need of a thorough re-examination of the extant documents, and it is probably a happy fact that this has recently been done not only from the judicious remoteness of two and a half centuries but also from the impartial interval of an ocean. Professor Louis Trenchard More's *Isaac Newton* is the result of the application of fine scholarship and biographical honesty to an independent and exhaustive study of the available sources.

Avoiding any temptation to scandal-mongering, this writer nevertheless has followed the spirit of historic impartiality in tracing the personal weaknesses, as well as the merits, of Newton's character, bringing him out of the eulogistic fog through which he has commonly been appraised. Newton's unfortunate relations with Hooke and Flamsteed, his vitriolic controversy with Leibniz, and the growing vindictiveness and autocratic warp of his old age could not be omitted; and we have now depicted the real man of flesh and blood, who could become curiously released from the rigor and discipline of scientific method when pursuing such matters as lineage and religious chronology. But these facts rather emphasize by contrast, in the words of the writer, the impressiveness of his "consummate genius, his pure intellectual integrity, and his reverent humility in the presence of . . . nature." (p. 11f.)

Professor More's independent scholarship is impressive. For example, he pricks the legend, traceable to Whiston, of Newton's abandoning the *Principia* because of the inaccurate available value for the earth's diameter and the consequent error in the calculation of the moon's attraction. Rather, the author shows, was it the result of "temperamental procrastination" and a distaste for the tedium of systematic development. Newton revealed from first to last a curious indifference to the public, and the constant need of prodding by friends or enemies. It seems clear that as early as 1679 he had purposed to abandon science, and only by a happy set of circumstances, an animosity toward Hooke, and the prodding of Halley, was he aroused to proceed to the laborious task of writing the *Principia.* It is also evident that Newton's major interest in life, taken as a whole, was religious and theological rather than scientific, and he confesses that his masterpiece was inspired by a desire to present "such principles as might work with considering men, for the belief of a Deity."

Newton's genius, as well as his colorless figure in society, provides grist for the psychoanalytic mill, since as a posthumous child, premature, frail, physically inferior, and unable to master boys' games, his creative powers were manifestly encouraged by loneliness and a dislike of his school fellows. But he drives the eugenicists to distraction inasmuch as he came from common stock of which he was the only flower. One cannot but stand in awe of the tangled meshes of human causality suggested by this biography. How much does the world owe to such a man as Mr. Stokes, Master of Grantham, who persuaded Newton's mother to let the lad abandon the prospective career of a small farmer for the larger opportunities of the university! How much do we owe, also, the pestilential stimulation of the ill-fated Hooke, and the irresistible persistence of Halley!

Professor More does service also in bringing to light the obscure and much misunderstood views of Newton on the theory of light. He also demonstrates that Newton's genius was already mature by his twenty-fourth year, when he had achieved the general theory of fluxions and the principle of gravitation, and had grasped the logic of experimental science. Those who are convinced of the logical purity of scientists and the logical impurity of religionists will be somewhat disillusioned by this biography of Newton, and as well by a careful reading of the author's chapter on the history of the mechanistic hypothesis.

Several errata have crept into the manuscript, such as a misspelling of Atlantis (p. 497) and the claim that Empedocles was a disciple of Democritus (p. 255); while on page 355 the impression is erroneously left that Locke's removal from his Oxford appointment was the occasion of his retirement in Holland. More serious, however, is a certain cramped appreciation of the philosophy of science by the author, and a certain obscurity not only in his analysis of the nature of physics, but in his appraisal of Newton. It cannot be denied that the Preface of the *Principia* spread a monumental speculative confusion over 18th and 19th century scientific thought, and led directly to the materialism of the Enlightenment. Newton was ontologically naive, and hence uncritical of his own realistic presuppositions. Professor More is, therefore, excessively eulogistic in his characterization of Newton's method, especially so in the light of the fact that it is admitted that Newton's first and third laws really are hypothetical rather than axiomatic. (p. 325) And Professor More is to be charged with a bias against contemporary physics not only in his conviction that science must hold to the dogma of the conservation of substance (p. 256), but also in his vigorous denunciation of relativity and atomic physics in general. In this fundamental error, as I believe, he shares with Newton a prejudice that physics must remain mechanistic and realistic, a prejudice, no doubt, responsible also for his excessive praise of Aristotelian logic and a rejection of the logic of relations. Nevertheless, in spite of serious defects, as I believe, Professor More has written a standard work on his subject. He has written with scholarly care, impartial judgment, and judicious selection of material; and his biography is to be accepted as a major contribution of the year.

Wilbur Long.

Stephen Gwynn's *The Life and Friendships of Dean Swift* presents evidence that the immortality of great writers is nowhere better demonstrated than by the fact that men will not allow these writers to sleep quietly in their graves. They keep them alive by writing new books about them. Especially is this the case with those whose baffling personalities have so troubled mankind that it is continually subjecting these personalities to further analysis in the fond hope that at last the problem may be solved. Hence the flood of studies of men like Edgar Allan Poe, William Blake, Thomas Carlyle, and Jonathan Swift.

Ever since the body of Swift was laid beside that of Esther Johnson, the immortal "Stella," in St. Patrick's Church, Dublin, in 1745, the biographers of Swift have striven to answer the many questions arising out of the life of this strange but powerful genius. From Sir Walter Scott, who wrote the first acceptable life of Swift, through Thackeray and Sir Henry Craik, down to our own day, little progress has been made in furthering our knowledge about the secret of Swift's personality. Equally vain have been the efforts to ascertain the exact relationship sustained by that curious eternal triangle—Swift, Stella, and Vanessa. Four biographers have within the last six years essayed the difficult task of getting somewhat closer to the heart of the great enigma of Swift's personality, no doubt the greatest enigma of English Literature. Of these biographies, that of Carl Van Doren, published in 1930, is probably the best all-round life of Swift yet published. Yet Van Doren's life, brilliant and charming as it is, leaves the reader with a rather horrible and grotesque impression of Swift. Mr. Gwynn, in *The Life and Friendships of Dean Swift,* attempts to present Swift as a *social* being. Basing his study on Swift's correspondence and works, he shows Swift in his comings and goings with men like Addison, Steele, the Earl of Oxford, Viscount Bolingbroke, and others, as well as in his relations with various women including, notably, Lady Temple, Esther Johnson, and Esther Vanhomrigh, and succeeds in portraying a much more human character than we have hitherto known. The book is carefully done but is rather hard reading. It lacks the color, the dramatic flow of action, and the style of biographies such as Van Doren's. But one is impressed by the earnest and impartial attitude of the biographer and certainly does not feel cheated in having given his attention to this very detailed and scholarly, if somewhat ponderous, treatment. There will remain many last words to say about Swift. He was a giant, to whom one must always pay the respect due to a giant. But we are grateful for Mr. Gwynn's study, which, though it may not reveal the secret of Swift's personality, may be taken with the various studies from different points of view to throw some light, at least, upon the extreme complexity of the great satirist's character. The volume is a good piece of bookmaking and carries numerous illustrations of an excellent character.

Louis Wann.

Carlyle, by Louis Cazamian, originally published in 1913, has been especially translated by Professor E. K. Brown for the American Edition now published. The author's foreword to this edition emphasizes the difference between the pre-War atmosphere producing the original work and that governing the world which will read the new edition. In many respects, Carlyle has more to say to a disillusioned post-War generation than he had to the world of 1913. This is not a biography of Carlyle, but a study of the chief influences in Carlyle's life and an attempt to evaluate the contributions of the Sage of Chelsea as writer and prophet. Much attention is given to the German influence upon Carlyle, Carlyle's philosophy of history, and his general social philosophy. Professor Cazamian, though admitting that in many respects Carlyle is a force of the past which no longer impresses the world, maintains that he has been "the supreme life-giving force for modern England." He maintains further: "If England has avoided the abysses of moral corruption and weak individualism, a large share of the credit must go to him."

Though this is not in any real sense a new book, its new issue in these days is, nevertheless, timely, for men of Carlyle's idealism have still something to say to a world brought to the verge of ruin by that materialistic philosophy which Carlyle was forever fighting.

L. W.

Science, Religion and Life

SCIENCE AND GOD. By *Bernhard Bavink.* Translated by *H. Strafford Hatfield.* Reynal and Hitchcock, Inc., New York. 1934. Pp. 171. $1.50.

THE ARCHITECTURE OF THE UNIVERSE. By *W. F. G. Swann.* The Macmillan Company, New York. 1934. Pp. 424. $3.75.

RELIGION AND THE SCIENCES OF LIFE. By *William McDougall.* Methuen and Company, London. 1934. Pp. xi, 263. 8s. 6d.

HEREDITY AND ENVIRONMENT. By *Gladys C. Schwesinger.* Edited by *Frederick Osborn.* The Macmillan Company, New York. Pp. viii, 472. $4.00.

GUIDE TO MODERN THOUGHT. By *C. E. M. Joad.* Faber and Faber, Limited, London. 1933. Pp. 264. 6s.

Troubled by the possibility of a "scientific backstairs literature," Professor Bernhard Bavink has given to the reading public the substance of a series of lectures delivered widely before popular audiences in Germany. The first four chapters of *Science and God* give in a trenchant and unusually clear way, nowhere excelled for the simplicity and clarity of statement concerning basic principles of contemporary physical theory, a description of the older mechanical world-picture, its demolition, and the fundamental characteristics of the newer mechanics. The latter five chapters develop a distinctly personalistic interpretation of physical and biological theory. It is within our own selves, the writer declares, that we have "direct access to true reality, to the 'substance' of the world;" and we are led to an immanent theism which "regards the whole world process, in its entirety and without exception, as resting upon God. This makes creation equivalent to maintenance, and is the *creatio continua* of the old theologians." Professor Bavink writes with unusual succinctness, profundity and modesty.

Another commendable effort at popularization in the astounding field of contemporary physics is *The Architecture of the Universe* by Professor W. F. G. Swann. The author writes with spicy informality, and has labored at great length by the use of analogies taken from common life to illumine the dark intricacies of such things as atomic structure, space-time, and relativity. At times, it must be confessed, his explanatory analogies and homely illustrations sail out into a sea of fog and leave the common reader helpless and lost. In the final chapter, less one, Professor Swann joins that growing group of thinkers who find mechanistic biology to be theoretically bankrupt, and who believe that life involves new, non-physical categories. The last chapter deals in an unfortunate manner with the subject of religion, that topic which physicists just *cannot* leave alone. The author is a bit shaky in this field, and he should be reminded that few who can profit by reading his book will be among those who regard Deity as "in the form of a human being." On the whole, however, this is a readable volume, written with a facile pen, and is a worthy addition to the fast-growing list of good books in popular physics.

In *Religion and the Sciences of Life* Professor William McDougall has gathered together a series of essays, most of them reprints, giving expression to his mature convictions. The first, from which the volume takes its title, concludes that biology and psychology give positive evidence of the authenticity of the religious consciousness. The second essay, on "Mechanism, Purpose, and the New Freedom" suggests that recent developments in science have undercut the older objections to freedom, and offer positive evidence of its reality. A third classifies theories of man into Apollonian and Dionysian. Subsequent topics discussed include such matters as psychical research, eugenics, anthropology, national ethics, and America's destiny. In the preface the author states with genial ruefulness: "It seems my fate to espouse unpopular causes . . . During the last forty years I have published a long array of scientific hypotheses, and a number of suggestions for social and political improvements. Not one of these has attained a wide acceptance." In this, as in other volumes, Professor McDougall, unusually qualified in knowledge of the history of philosophy as well as of science, and endowed with a wide interest in life, writes with thought-provoking and stimulating effect. Outlined in several of these essays, he hints, are volumes still to be written.

Heredity and Environment, by Gladys C. Schwesinger, carrying as its subtitle *Studies in the Genesis of Psychological Characteristics*, is a compendium summary of the result of psychological research in certain aspects of the field of human psychology. It deals specifically with the nature and tests of intelligence and personality, the various physical and cultural environmental influences on the development of intelligence, and the various viewpoints of personality from the various professional and scientific viewpoints, with the intent to indicate contributions from this mass of studies to the problem of eugenics. The general conclusion reached is a rejection of the extreme views of the "Environmentalists," on the one hand, and of the "Hereditarians," on the other. Existing knowledge, it is argued, reveals important differences among individuals in hereditary capacity for intelligence, and presents "strong evidence . . . that the higher intelligence of the upper socio-economic groups as compared with groups lower in the socio-economic scale, is to an important extent due to differences in hereditary capacity." The reader is impressed by the divergence in views among the experimenters, in spite of an enormous mass of accumulated material, and the consequent conviction, indicated also by the author, not only of the logical and experimental difficulties involved in psychological research, but of the tentative character of most of the achieved results. The book is comprehensive, thorough, and carefully organized with summaries, conclusions, and extensive bibliographies.

C. E. M. Joad's *Guide to Modern Thought* proposes to introduce the layman to the mysteries of contemporary scientific thought, which, on everybody's tongue, are nevertheless not always intelligently understood. The topics include modern materialism, Pavlov and behaviourism, the world of modern physics, current theories of life and matter, vitalism and creative evolution, abnormal psychical phenomena, psychoanalysis, and the influence of psychology on contemporary literature. The only objection worth mentioning in this very readable little volume is a rather gullible acceptance of the authenticity of psychic phenomena.

W. L.

Individual and Social Ethics

THE METHOD OF FREEDOM. By *Walter Lippman.* The Macmillan Company, New York. 1934. Pp. xi, 114. $1.50.

PHILOSOPHY OF SOCIETY. Edited by *Charles A. Hart.* The Dolphin Press, Philadelphia. 1934. Pp. x, 199.

A PHILOSOPHY FOR LIBERALISM. By *Bruce W. Brotherston.* The Beacon Press, Boston. 1934. Pp. iv, 187. $2.00.

With his usual grasp of facts and remarkable clarity of analysis Walter Lippman has given us in *The Method of Freedom* a compact and comprehensive summary of his views on political and economic affairs, with particular reference to the United States. He traces the rise of the capitalistic system before the war, which was tolerated by the people so long as it got results, but which was disrupted by the wartime measures of state socialism, and which has since been distrusted by the people in general. He believes that the nineteenth century *laissez faire* has given way to a collectivist principle. It is not however an absolute collectivism which he advocates, but rather a "free collectivism" or "compensated economy," in which is preserved the freedom of private initiative.

The Aristotelian ideal where the majority belong to the middle class and are free men neither employees of the state nor disinherited, is adhered to as the foundation of a free society. It is the author's conviction that the security which comes from private property is the foundation of personal liberty. The right to work should be recognized by the state, and during a period of the paralysis of private enterprise this opportunity must be afforded by a program of public works.

Herbert L. Searles.

The Ninth Annual Meeting of the American Catholic Philosophical Association, held at Pittsburgh in December, 1933, was devoted to the general theme of social philosophy. The papers there delivered now appear in the volume *Philosophy of Society,* a book which can be recommended to those who wish a succinct review of the official position of the Roman Catholic Church on such matters. The papers, of unequal merit, cover such topics as the philosophy of capitalism, communism, fascism, internationalism, the family, education, reconstructing the social order, and philosophy of history. In the words of the editor, Professor Charles A. Hart, the general tenor of the volume, in brief, is the conviction that "Such social forces as the family, education, law, religion, and social values can perform their proper and fullest role only to the extent that they predicate a philosophy of theism." In spite of a genial warmth pervading the series of articles, due to its sympathy with the great spiritual traditions of the Western world, the impartial reader will probably experience something of a mild feeling of suffocation. The reliance on medieval authority and papal encyclicals, and the too-frequent repetition of the name of Thomas Aquinas, bring to mind the fact that this type of thought moves irretrievably in a treadmill.

W. L.

In offering *A Philosophy for Liberalism* Professor Brotherston does not close his eyes to "the debacle of liberalism" of the post-war years. Rather, he insists that only through the discovery of a philosophy for liberalism can liberals withstand either the ideology or the less ideal pressures of illiberal points of view. The liberal, he believes, has been snatching at straws instead of going to the heart of liberalism, which is personality. Personality, Dr. Brotherston finds, offers an adequate ground for a philosophy of experience and action, in that the human personality above all other natural objects reveals the organic relationship of parts to whole, the functional interplay of differing interests and tendencies, which mark not only the attitude of liberalism, but the processes of social life, and, perhaps, more deeply, of cosmic processes.

Some readers would prefer a more systematic development of this general theme; others will enjoy the informal treatment of this book, which ranges through various moments of history in a truly liberal way.

H. J. S.

Does Life Survive Death?

THE CHANCES OF SURVIVING DEATH. By ***Wm. Pepperell Montague.*** The Ingersoll Lecture, 1932. Harvard University Press, Cambridge, Massachusetts. 1934. Pp. 98. $1.00.

IMMORTALITY AND THE COSMIC PROCESS. By ***Shailer Mathews.*** The Ingersoll Lecture, 1933. Harvard University Press, Cambridge, Massachusetts. 1933. Pp. 51. $1.00.

Since the writing of Plato's *Phaedo* so much as been said concerning the ageless subject of Immortality, that a burden has been placed upon the Ingersoll lecturers which they have carried in an admirable manner. The 1932 lecturer, Professor Wm. Pepperell Montague, chose as the topic of his study *The Chances of Surviving Death.* Having dispatched neatly those who claim that personal immortality is undesirable, selfish, or adequately compensated for by "the light-hearted substitution of an unending progress toward Utopia by the race as a whole," the author attacks the main issue,—whether the Self is adjectival to the body or a substantive in its own right. His extended argument gives the verdict in favor of the latter alternative. The remainder of the lecture elaborates his theory that mind is a unique kind of physical field comprising potential energy. He closes his spirited, sympathetic and lengthy discussion with the suggestion of the possibility that personal life

> not only goes on growing but wins to some strange mystic union with that greater Life in which it has its little being. Precious and indispensable for value as personality appears, there is about it something tragically wanting; and as in every finite thing, but more acutely, a sort of wound that cries for healing. If that vaguely longed-for supplement to our being could come, and come without the annihilation of such being as we already have, then would eternity hold out to us the prospect of something unimaginably more than mere survival.

The argument in *Immortality and the Cosmic Process*, the 1933 lecture, by Professor Shailer Mathews, centers in the fact that evolution reveals in Nature a bent toward individuality and personality. There is no reason to suppose, however, it is argued, that the process has now abruptly ended. Further evolution might be either of species or within the personal individual, and it is reasoned that the higher probability of the latter provides scientific support of the hypothesis of personal survival. The cool detachment of the writer raises a possibly unfounded suspicion that he may have little personal interest in the truth of his point of view.

W. L.

Miscellaneous

THE PRINCIPLES OF LOGIC. An Introductory Survey. By *C. A. Mace.* Longmans, Green and Company, New York, Toronto. Pp. xiii, 388. $4.50.

THE THREE ESTATES IN MEDIEVAL AND RENAISSANCE LITERATURE. By *Ruth Mohl.* Columbia University Press, New York. 1933. Pp. 425. $4.50.

VALE. By the *Very Rev. William Ralph Inge.* Longmans, Green and Company, New York. 1934. Pp. 127. $1.60.

THE QUEST OF SOLITUDE. By *Peter F. Anson.* E. P. Dutton and Company, New York. Pp. xvii, 265. $2.50.

REALITY AND ILLUSION: A New Framework of Values. By *Richard Rothschild.* Harcourt, Brace and Company, New York. 1934. Pp. 442. $3.50.

ORTHODOXY IN MASSACHUSETTS. By *Perry Miller.* Harvard University Press, Cambridge, Massachusetts. 1933. Pp. xv, 313. $3.50.

COLLEGE OF THE PACIFIC PUBLICATIONS IN PHILOSOPHY: VOLUME III. Edited by *Paul Arthur Schilpp.* College of the Pacific, Stockton, California. 1934. Pp. 153.

TRENDS OF CIVILIZATION AND CULTURE. By *Charles Gray Shaw.* American Book Company, New York. 1932. Pp. xvi, 671. $3.50.

LA SUBSTANCE DE L'EVANGILE SELON LUTHER. Temoignages choisis, traduis et annotes par Henri Strohl, Doyen de la Faculte de Theologie Protestante de Strasburg. "La Cause," Paris. 1934. 20 francs.

Any Logic nowadays, which purports to give an exhaustive account of the subject so denominated, has to be very much of what the biologists call a *chimera,* a composite monster artificially put together out of *four* ingredients. For logicians are in greater disagreement than ever as to what they shall teach as the theory of reasoning. If they were reckless and ruthless enough, they could wholeheartedly teach, either (1) the old Aristotelian logic, which aimed at (and seemed to achieve) the verbal confutation of an opponent in a dialectical game which presupposed the stability of verbal meanings that were known and accepted by both parties. Or (2) they could aim at exactness, and ape mathematics, by devising an infinity of "baleful signs" to denote what they take to be the fundamental functions of thought. As they can choose their fundamental functions at will, there is no limit in principle to the number of such "symbolic" logics. Or (3) they could, with Spinoza and Hegel, claim *metaphysical* validity for their operations, and contend that they reproduce (or even produce!) the course of ultimate reality, *der Gang der Sache selbst.* Or lastly (4) they could observe the actual procedures of human thinking and the value of the consequences which ensue.

Now the first three of these logics will all be dependent in their statements on the actual meanings of our extant vocabulary, and will demand its fixity;

they will all, therefore, be verbalistic, and their demonstrations will be liable to be upset at any moment by the growth of the meanings of the words they have had to use. On the other hand, the fourth sort of logician will be unable to take any meaning as fixed and granted, and will continually have to develop logical meaning out of psychological, and to struggle against the prejudices cherished by philosophers against "psychology."

In the present volume Mr. Mace has produced an amiable and fairly creditable "chimera." True, he has entirely ignored the metaphysical logics, and merely gives a half-terrified sniff at "psychologic"—though he is not above making effective use of its essential conceptions of *relevance, context, trains of thought,* and even (once, p. 123) of *purpose:* but with the aid of J. M. Keynes and W. E. Johnson he manages to give a conscientious re-hash of the traditions of Aristotle and J. S. Mill, and to graft on this old stock his "modern" logic, meaning thereby symbolic logic as it is understood in Cambridge (England). Outside this there is for him no salvation, but he endeavours to smoothe a little the beginner's path to its pedantries and paradoxes. For this purpose his book may have some value, though I am sceptical whether anything short of a miracle can transform a chimera into an angel of light and whether an "introduction" can really be effective that tells the novice so little about the systematic position and difficulties of logic, and leaves unexplained basic conceptions like inference, validity, truth, and "form." Nor would it seem that any amount of praise of "exactness" in derivatives could make up for inexactness in fundamentals. As however Mr. Mace will no doubt plead in excuse the shortness of his book and the modesty of his aim, I will conclude my comments with a mild regret that he should have spoilt Thackeray's story of the Abbe who prattled about the secrets of the confessional and of the Duke who was syllogistically inferred to be a murderer, by turning it into a vulgar tale of a doctor and a family of drunkards (p. 13)! F. C. S. S.

The study of *The Three Estates in Medieval and Renaissance Literature,* by Ruth Mohl, is one of those books that prove to be far more interesting and significant than most readers would perceive from their titles. It aims to survey the whole course of that literature of Western Europe which concerned itself, from the eleventh century to the middle of the seventeenth century, with the prevailing conception of society as composed of three divinely ordered ranks: the nobility, the clergy, and the commons. Miss Mohl recognizes a rather definite literary form in the literature presenting the multifarious aspects of the subject. She carefully defines the form, traces its history on the Continent and in England, presents the underlying philosophy of the "estates of the world," describes the various defections found by writers in these estates, and analyzes the various remedies proposed to cure these defections. Possibly, since the rise of democracy in the seventeenth century broke down the conception of the three estates, the modern reader is more interested in the remedies proposed than in what appear now to him to be very obvious defections. Most significant among the proposed remedies were the Return to God, as illustrated in Gascoigne's *The Steel Glass,* the Doctrine of Love, as represented by More's *Utopia* and the *Mirror for Magistrates,* the new dependence on law, and new theories of government.

This study was carefully envisioned, the analysis has been abundantly illustrated by examples, and the history and widespread influence of the form have been made obvious. The book contains an excellent bibliography, and students of the subject or of the form will find the detailed index especially helpful.

L. W.

On the eve of his departure from active life, Dean Inge, in *Vale,* which he declares to be his final word to the world, turns to retrospection and personalia, and within the confines of this little volume sums up the thoughts and events of a lifetime. In brief strokes he touches upon such subjects as Church of England polity, the Sacraments, Platonism and Plotinus, Biblical criticism, Romanism, eugenics, birth control, war, secularism, Marxism, and economic and political England. The book thus combines historical interest and his mature wisdom of life. Possibly his own simple confession best writes *finis* upon a noble career of public service: "I have always tried to speak the truth, and to give honest work."

W. L.

The quest of that which solitude offers, as old as civilization itself, represents more than a mere flight from the severities of real life; for it is essentially an aggressive and not a passive existence to which the recluse commonly devotes himself, and the goal to which he aspires is a vision of a world at once more peaceful and more real than the shallow ephemerality of common men. Into this life, which can scarcely be understood without a certain power of histrionic sympathy, Peter F. Anson draws us, in *The Quest of Solitude.* He covers the whole ground in a simple but interesting way, from the solitaries of the pre-Christian and early Christian era to modern types. A generous number of pen sketches by the author lends interest, and an extensive bibliography is included for further research.

W. L.

The aim of Richard Rothschild's *Reality and Illusion* appears in its subtitle, *A New Framework of Values.* The author proceeds systematically, dealing with the whole range of experience, and not merely with the usual preoccupations of academic philosophy. For he believes that only as we begin to rebuild the tissues of life that have been torn away in our search for the abstract skeleton of natural science shall we once more grasp a full-blooded reality. Abandoning a merely intellectual approach to philosophical problems, the author does not hesitate to argue by analogy from one form of experience to another, from aesthetics for example to metaphysics. For he believes in the reality of symbolism and the significance of meanings that are neither completely nor logically explicit. Thus his view of reality stands out as that of organism rather than of mechanism.

In spite of its intention there is no essential novelty in the view presented, nor does it leave one with the feeling that the new framework of values has been set forth. Most of the criticisms of passing attitudes are just, but they seem loosely put together both as to content and as to style.

H. J. S.

In his volume, *Orthodoxy in Massachusetts,* Mr. Miller has given us a history of the development of the "orthodox" churches in early New England, which is full of interesting and valuable information, and written in as interesting a way as the bulk, the complexity, and the somewhat heavy nature of his material permits. Elaborating upon his main thesis—that the religion of the Massachusetts Bay Colony was no mere offshoot of Plymouth, or offspring of the "great open spaces" of the New World, but had its roots deep in conditions in the old country—he gives us a detailed account of the genesis and growth. The English Puritans, he points out, made at first no objection to the supremacy of the crown in matters ecclesiastical, established by the separation of the Anglican from the Roman Church. Their grievance in the beginning was simply ritualistic, but their challenge soon included the institution of the episcopacy and the authority of the sovereign, save as that authority was limited to enforcing the rules and regulations of ecclesiastical discipline and conduct laid down, as they thought, by Christ himself. And the regulations, favoured by Christ, were Presbyterian rather than Episcopal in character. The Puritans, then, constituted the true church. The Anglican bishops and all that they implied were mere usurpers.

But what is sauce for the goose is sauce for the gander, and the Presbyterians soon found themselves confronted with the Congregationalist revolt, which denied the authority of the elders on much the same grounds and in much the same terms as the Puritans had denied the authority of the bishops, though like the Puritans they were still willing to acknowledge the supremacy of the sovereign, so long as he subscribed to their principles. But once more within the Congregational ranks a division occurred between the non-Separatists, who still considered themselves within the fold of the Anglican Church (congregationally and properly interpreted) and those who rejected Anglican authority *in toto.*

Such was the background out of which and against which religion in New England evolved. Plymouth was Separatist, Massachusetts Bay non-Separatist Congregationalist, with some infusion of Presbyterianism. All the controversies and the intolerances of the English situation were thus transferred to the American.

We have expatiated upon the earlier portion of the book because it dwells upon aspects of the subject of peculiar interest to the author and somewhat scanted by the historians. Time is lacking to deal with Mr. Miller's description of the welter of dispute, recrimination, intolerance, heresy-hunting and persecution that characterized the growth of the New England theocracy. Moreover, these phases of religion in New England are only too well known, not only historically, but as crystallized habits of evangelical Christianity, with which liberalism in America has always had and is still having to contend .

B. A. G. Fuller.

Volume III of *The College of the Pacific Publications in Philosophy,* consisting of addresses delivered at the college is excellent evidence that popular philosophy can sometime be taken seriously. The papers range all the way from Professor Victor F. Lenzen's discussion of "The Philosophical Significance of Contemporary Physics," to Professor F. C. S. Schiller's discussion of "William James, The Maker of Pragmatism." Professor Paul Arthur Schilpp's paper, "On the Possibilities and Limitations of Natural Science," is of timely interest. He writes, "I do not conceive that the reign of natural law has as yet been seriously put in jeopardy by any scientific discoveries. . . . The assumption of a universe of absolute order is the *sine qua non* of all scientific endeavor." (p. 46) As general editor of the series of which this volume is the third, Professor Schilpp is to be congratulated on its continued excellence. One reads with regret that this is the last volume to appear.

H. J. S.

Most surveys of world history tend to sweep together a few facts to illustrate some contemporary theory or ideal. On the whole Professor Charles Gray Shaw in *Trends of Civilization and Culture* has avoided this tendency, describing former cultures in terms of their own values, and not merely as evolutionary forerunners of the mechanical triumphs of our day. Thus, unlike Professor Thorndike in his *Short History of Civilization,* in his discussion of the Middle Ages, he gives Christianity an important place.

Professor Shaw is no mere fact grubber, but a man of interests and ideas. His work is therefore thoroughly readable, but there is an unfortunate tendency for chapters on such general subjects as "The Values of Civilization" to intrude on what is on the whole an historical account. The "spiral method of history" offered in place of the "linear," "circular," and "pendular" methods ensures a happy ending even in the face of Spengler's pessimism. As a potential text for the "all about everything" courses that are becoming increasingly popular in universities, this work has the advantage of being alive to the historical importance of culture as well as of civilization. It has the possible disadvantage of being almost entirely limited to the history of the West.

H. J. S.

The volume, *La Substance de L'Evangile Selon Luther,* comprises a careful selection from the writings of Martin Luther, translated into French, by Henri Strohl, Dean of the Faculty of Theology at Strasbourg. The choice of material has been made wisely, and covers the essentials of his thought. Brief introductions and explanatory notes, which have been added, will be found of value to the reader.

W. L.

BOOKS RECEIVED

Books not commented on here reserved for more extensive review.

THE ESSENCE OF PLOTINUS. Based on the Translation by *Stephen Mackenna.* Compiled by *Grace H. Turnbull.* Foreword by the *Very Reverend W. R. Inge, D.D.* Oxford University Press, New York. 1934. Pp. iv, 276. $2.50.

AT WAR WITH ACADEMIC TRAIDITIONS IN AMERICA. By *A. Lawrence Lowell.* Harvard University Press, Cambridge, Massachusetts. 1934. Pp. ix, 357. $4.00.

SOCIAL ORGANIZATION AND DISORGANIZATION. By *Stuart A. Queen, Walter B. Bodenhafter,* and *Ernest B. Harper.* Crowell's Social Science Series. Edited by *Seba Eldridge.* Thomas Y. Crowell Company, New York. 1934. Pp. 164. $2.00.

An extensive treatment of social phenomena from the purely objective viewpoint, in terms of groups, institutions and personalities. A generous amount of case material is included.

WOMEN WORKERS THROUGH THE DEPRESSION. By *Lorine Pruette,* Editor, and *Eva Lowther Peters, Ph.D.,* Director of Research. The Macmillan Company, New York. 1934. Pp. 164. $2.00.

ST. THOMAS AND THE PROBLEM OF THE SOUL IN THE THIRTEENTH CENTURY. By *Anton Charles Pegis.* The Institute of Mediaeval Studies. St. Michael's College, University of Toronto, Toronto, Canada, under the Direction of *Etienne Gilson.* 1934. Pp. 209. Paper cover. $2.50.

THE COMPENDIUM THEOLOGIAE, Part I. Tractate 2. By *Saint Thomas Aquinas.* Translated from the Latin by *Ross J. Dunn, M.A.* St. Michael's College Philosophical Texts, University of Toronto, Toronto, Canada. 1934. Pp. 188. Paper cover. $0.90.

A translation of Part I of Tractate 2 of the Compendium of Theology, originally written for Brother Reginald, one of Thomas Aquinas' last works, and left half-completed at his death.

THE ACHIEVEMENT OF ROME. A Chapter in Civilization. By *William Chase Greene.* Harvard University Press, Cambridge, Massachusetts. 1933. Pp. 534. $4.50.

A WITNESS THROUGH THE CENTURIES. By *Reginald Hegy, M.D.* E. P. Dutton and Company, New York. 1935. Pp. 230. $2.00.

Describes the details of the after life as revealed by angelic guides. An appendix explains how you can get your own spirit messages.

PHILOSOPHICAL STUDIES. By *J. McT. Ellis McTaggart.* Edited, with an Introduction, by *S. V. Keeling.* Longmans, Green and Company, New York, and Edward Arnold and Company, London. 1934. Pp. 292. $5.00.

DICTIONARY OF AMERICAN SLANG. By *Maurice H. Weseen.* Thomas Y. Crowell Company, New York. 1934. Pp. 558. $2.50.

Defining over 15,000 expressions, this volume is indispensable to those seeking the meaning of Ignuts, Haggy Moll, or Lupergobslopcious.

DICTIONARY OF FOREIGN TERMS. By *C. O. Sylvester Mawson.* Thomas J. Crowell, New York. 1934. Pp. 389. $2.00.

Defining approximately 11,000 foreign terms found in English and American writings, from fifty-six languages.

ARISTOTLE'S CONCEPTION OF THE SOUL. By *E. E. Spicer.* University of London Press. 1934. Pp. 226. 8s. 6d.

EXPERIMENT IN AUTOBIOGRAPHY. By *H. G. Wells.* The Macmillan Company, New York. 1934. Pp. 707. $4.00.

A SHORTER HISTORY OF ENGLAND. By *Hilaire Belloc.* The Macmillan Company, New York. 1934. Pp. 635. $3.00.

Writing as an independent historian and from the perspective of an informed Roman Catholic, Mr. Belloc presents new and challenging interpretations, and cuts clear from historic traditions by placing unusual emphasis upon the Roman period, the Church's reestablishment of religious civilization in the 7th and 8th centuries, and the religious metamorphosis in the 16th and 17th centuries, and the Great Irish Famine. His treatment of the era following 1688 changes in keeping with his conviction that henceforth classes, not personalities, govern the flow of English history.

THE COMING OF KARUNA (Being a Vision of Creative Love). By *Ranjee G. Shahani.* With an Appreciation by *Havelock Ellis.* E. P. Dutton and Company, New York. Pp. 91. $1.00.

PHILOSOPHERS SPEAK FOR THEMSELVES. Guides and Readings for Greek, Roman, and Early Christian Philosophy. By *T. V. Smith.* The University of Chicago Press, Chicago. Pp. xiv, 800. $4.50.

THROUGH SPACE AND TIME. By *James Jeans.* The Macmillan Company, New York and Cambridge, England. 1934. Pp. 218. $3.00.

THE UNIVERSE AROUND US. By *Sir James Jeans.* Third Edition, Revised and Enlarged. The Macmillan Company, New York. 1934. Pp. 370. $4.00.

ELECTRONS (+ and —), PROTONS, PHOTONS, NEUTRONS, AND COSMIC RAYS. By *Robert A. Millikan.* The University of Chicago Press, Chicago. 1935. Pp. 456. $3.50.

WHY WARS MUST CEASE. By Ten Authors, for the Committee on the Cause and Cure of War. Edited by *Carrie Chapman Catt.* The Macmillan Company, New York. 1935. Pp. 165. $1.00.

THE POETRY OF MATHEMATICS AND OTHER ESSAYS. By *David Eugene Smith.* Scripta Mathematica, Yeshiva College, New York. 1934. Pp. 90. Paper cover, 50 cents; cloth 75 cents.

MORALS AND POLITICS: THEORIES OF THEIR RELATION FROM HOBBES AND SPINOZA TO MARX AND BOSANGUET. By *E. P. Carritt.* Clarendon Press, Oxford, England. 1935. Pp. 216. $2.25.

PROBLEMS OF PHILOSOPHY. Revised. By *G. Watts Cunningham.* Henry Holt and Company, New York. 1935. Pp. ix, 294. $3.00.

MIND AND SOCIETY. By *George H. Mead.* University of Chicago Press, Chicago. 1934. Pp. xxxv, 389. $5.00.

THE ARGUMENT OF PLATO. By *F. H. Anderson.* J. M. Dent and Sons, Limited, Toronto. 1934. Pp. vii, 210. $2.00.

THE SPIRIT OF MAN IN ASIAN ART. Being the Charles Eliot Norton Lectures, 1933-1934. By *Laurence Binyon.* Illustrated. Harvard University Press, Cambridge, Massachusetts. 1935. Pp. viii, 217. $4.00.

POLITICAL ETHICS. By *Daniel Sommer Robinson.* Thomas Y. Crowell Company, New York. 1934. Pp. xviii, 278. $2.00.

DANTE VIVO. By *Giovanni Papini.* Translated from the Italian by *Eleanor Hammond Broadus* and *Anna Benedetti.* Illustrated. The Macmillan Company, New York. 1935. Pp. ix, 340. $3.50.

SPENSER'S FAERIE QUEENE: AN INTERPRETATION. By *Janet Spens.* Edward Arnold and Company, London, and Longmans, Green and Company, New York. 1934. Pp. 138. $3.40.

COLLEGE LOGIC. By *Alburey Castell,* Department of Philosophy, University of Minnesota. Burgess Publishing Company, Mimeograph Publishers, Minneapolis. 1934.

An introduction to logic, in mimeographed form, from the standpoint of argument and proof. It contains a good glossary of logical terms.

Contents

Articles Page

I. Burning Questions 199
F. C. S. Schiller

II Can God Be Known? 216
Paul Arthur Schilpp

III. Schopenhauer 227
B. A. G. Fuller

IV. Who Calls for Pain to Sharpen Thought: Verse 240
Elizabeth Maxwell Phelps

V. The Scientific Concept of Reality:
II. Leibniz and Newton 241
Herbert Wildon Carr

VI. Free Will in Browning's "The Ring and the Book" 249
M. Whitcomb Hess

VII. Reflections of a Peripatetic: IV 255
The Editor

Current Thought 262
"The Future of Liberalism"

Notes and Discussions 264
Benefits of Travel
Autumn Crocus and Wild Strawberries

Our Foreign Letter 266
East, West, and Tomorrow

Along the Bookshelf 269
The Universal Spinoza
Spinoza: The Man and his Thought: *Schaub.* Spinoza and Buddha: Vision of a Dead God: *Melamed.* The Philosophy of Spinoza and Brunner: *Bernard.*
The Essence of Plotinus
The Essence of Plotinus: *Turnbull.*
Moral Philosophy
Beyond Conscience: *Smith.* Le Probleme Moral et les Philosophes: *Cresson.*
Recent British Philosophy
Philosophical Studies: *McTaggart.* Value and Reality in Bradley's Philosophy: *Keeling.* Die Philosophischen Stroemungen der Gegenwart in Grossbritannien: *Metz.*
Personalism in Philosophy and History
The Concept of a Limited God: *Baker.* History and the Self: *Oakeley.*
The Religious Synthesis
Essentials in the Development of Religion: *Turner.* The Meaning and Truth of Religion: *Lyman.* Christianity and Philosophy: *Edwards.* God at Work: *Brown.* The Nature of Religion: *Wobbermin.* A History of Religion: *Gowen.* The Unknown God: *Noyes.*
Beauty and the Man
Concerning Beauty: *Mather.* The Spirit of Man in Asian Art: *Binyon.*
Random Monographs and Studies
St. Thomas and the Problem of the Soul in the Thirteenth Century: *Pegis.* On Being and Essence: *Riedl.* The Philosophy of the Future: *Richardson.* Chinese Ethical Ideals: *Rawlinson.* Aristotle's Theory of the Infinite: *Edel.* Nature and Life: *Whitehead.* The Categories of Charles Peirce: *Freeman.*

Our Contributors' Page 194

The Lantern of Diogenes 196

Books Received 287

OUR CONTRIBUTORS' PAGE

In the inimitably humorous Schillerian vein **Dr. F. C. S. Schiller** considers the problem of the unheroic martyrdom of such philosophers as have not escaped the notice of the general public. Yet in the problem of the self, he feels, lies a question charged with the deepest significance for philosophy, science and society, and this forms the theme of *Burning Questions.*

Under the title *Can God Be Known?* **Professor Paul Arthur Schilpp** draws the distinction between the empirical knowledge of science and the religious assurance of faith and shows that an empirical or scientific knowledge of God cannot replace the venture of faith without the destruction of all religious values. The greatness and power of religion give the capacity to carry on expressed in the old hymn:

> And when the joys of sense depart
> To live by faith alone.

In decided contrast to the attitude of Dr. Schilpp is that of **Professor B. A. G. Fuller's** discussion of *Schopenhauer.* Probably the world will continue to be filled with pessimists and optimists in spite of this clear and lucid attack. The pessimist will continue, as does Dr. Fuller, to be shocked at the optimism of those who try to conceive behind the riddle of the world "some Power not ourselves that makes for righteousness." Just why such people should be condemned for their optimism he does not make evident. At least the believers in God can honestly be said to make the world's best systematic effort to solve the problem of suffering, while the pessimists seem to have largely an academic interest.

Elizabeth Maxwell Phelps, of Staunton, Virginia, is a newcomer to our pages in the sonnet *Who Calls for Pain to Sharpen Thought.*

In none of the work appearing during his lifetime was **Herbert Wildon Carr** more lucid or more important to the realm of thought than in this general series on *The Scientific Concept of Reality.* In this number we have his discussion of Leibniz and Newton.

Professor M. Whitcomb Hess, long and favorably known to our readers, presents an admirable analysis of Browning's *The Ring and the Book.*

The Editorial Peripateticism continues to be emphasized in travel reflections extending from Prague to the boot of Italy.